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Settlement Patterns, Development and Cultural Change in Northern Oman Peninsula:

**A multi-tiered approach to the analysis of long-
term settlement trends**

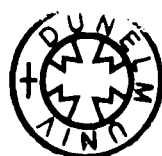
Volume 2 of 2: Appendices and Illustrations

NASSER SAID ALI AL-JAHWARI

**A thesis submitted to Durham University for the degree of
DOCTOR OF PHILOSOPHY**

**Department of Archaeology
Durham University
April 2008**

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APPENDIX A: SITES GAZETTEER

APPENDIX A: SITES GAZETTEER

This appendix is intended to provide a site gazetteer with a description of all of the recovered sites during the Wadi Andam Survey and their archaeological remains. As indicated in the methodology section in Chapter Four (Section One 4.1.2.1.5.3), level 5 of the Wadi Andam Survey included surveying selected wadi villages and their surroundings as well as other areas along the Upper Wadi Andam banks. Thus, the sites recorded by the survey will be divided into two parts: those recorded within each wadi village and its surrounding areas, and those recorded on the other areas along the Upper Wadi Andam. Site description in this gazetteer will include the site's name and code created for the purpose of this study, its approximate total area and its position taken by hand-held GPS (Oman WGS 84). It will also include a description of each site's archaeological features that will include two types: structures and finds, as well as other remarkable notes. Site names are written as spelt in the local dialect and as appearing in the official signs made by the Ministry of Transportation and Communication (see Appendix F for names transliteration and Arabic spelling). As indicated in Chapter Four (Section One, 4.1.2.2), recording sites includes an organized numbering system which includes the name of the nearest village or area to the site followed by the defined area number (e.g. Barzaman CS.7), and then by the site number (e.g. CS.7.1). Each site or feature within that site was also given a separate number (e.g. CS.7.1.3). This numbering system was used in order to make the sites more recognizable for the reader and for any future studies.

The description within this gazetteer will present both the structural remains and finds from each site. Site features only will be listed here. For more detailed descriptions it is recommended to refer to the site typology at Appendix B. For finds, the gazetteer will only indicate the total number of collected pottery sherds and their dating. For more details on pottery class descriptions and their related data, it is recommended to refer to the pottery typology and classification in Appendix C.

A.1- VILLAGES SURVEY:

The results of the surveyed wadi villages (villages) can be summarized as the following:

A.1.1- AL-FULAYJ VILLAGE (CS.1):

The survey includes Wadi al-Fulayj which is more than 5 km² north from al-Fulayj village and on both sides of the wadi (E–W) (Plate 246). The wadi bed was not surveyed, only the gravel fans and the village. The survey includes the village, which was divided into five areas for pottery collections (see below). The total surveyed area is located between the junction of Samad and the end of the al-Fulayj village.

The survey results in this village yielded nine sites (Map 38), which are numbered from CS.1.1 to CS.1.9. The following is a brief description of each site with its main archaeological features.

Al-Fulayj CS.1.1 (0608863/2531605), Figure 88:

Size: 44 ha.

Structures:

This is the area located 3 km from the main village. It yielded a group of around four Beehive tombs (Plate 31) and eight Hafit cairns (Plate 247). The Beehive tombs are well preserved and have an east facing entrance around 50 cm high and 40 cm wide. They include two double-skin stone walls of around 80 cm to 1 m thick built of crude yellow stones with corbelling. They stand to a height of around 3 m and around 5 m diameter at their base. In addition, the Hafit cairns are piled brown and black wadi stones of unshaped and crude stones that may have been brought from the nearest rocky hills around 100 m away. No remains of any concentric walls can be noticed. However, a pit in the middle of one possible burial is visible. The cairns' diameter ranges between 5 m and 6 m, and their height varies between 1 m and 2 m. Moreover, the site includes two stone horseshoe structures with a double stone wall around 30 cm thick and filled in the middle with gravel and sand. Both structures are attached to each other with an opening of around 1 m wide.

Finds:

The site's surface yielded two Umm an-Nar pottery sherds and possible concentration of chert flints.

Al-Fulayj CS.1.2 (0607984/2530944), Figure 50:

Size: 18 ha.

Structures:

This area is around 2 km away from the main village and is surrounded by rocky hills on its western side and a graded road, which leads to the village, on the eastern side. The area shows a group of possible platforms, scattered stones, possible subterranean circular tombs, and a group of piled stones (Plate 248). The possible platforms consist of one stone course alignment. In addition, there is a circular stone structure of one stone course alignment above the surface. This is around 90 cm in diameter with a group of stones piled in the middle of the structure. The site also consists of a group of possible subterranean circular tombs around 1 m to 1.40 m in diameter. Moreover, groups of heaped as well as scattered stones were found all over the site. Many of the scattered stones show no specific shape, while the piled stones are more or less circular in shape and range between 50 cm and 1 m in diameter and around 10 cm to 25 cm high.

Finds:

Few pottery sherds were picked up from the surface of the site, which include one sherd of Middle Islamic and few Late Islamic pottery sherds. The site also yielded one worked piece of flint (W.D.001: Plate 2) that was collected from the possible platforms.

Al-Fulayj CS.1.3 (0607832/2529992), Figure 50:

Size: 16.5 ha.

Structures:

This site includes a stone horseshoe structure built of double-skin stone wall, filled in the middle with gravel, and opens on the east (Plate 249). The whole structure is around 1.30 m in diameter and attached with one course stone alignment or wall in the north-western part. The site also yielded one badly preserved Beehive tomb of crude yellow stones and a

double-skin stone wall of around 80 cm thick, as well as an entrance facing east. It is around 2.50 m in diameter and built on top of a yellow rocky hill. Lastly, the site consists of five possible collapsed Beehive tombs that are located around 150 m south of the above mentioned tomb. They are built on a yellow rocky hill ridge and its slopes.

Finds:

No finds.

Al-Fulayj CS.1.4 (0607803/2529110), Figure 89:

Size: 63.64 ha.

Structures

This site consists of around 122 Hafit cairns, around 26 Beehive tombs (Plates 32–33), a group of stone structures and a burial ground that includes more than 45 tombs of different types as well as an Islamic cemetery. The Hafit cairns include concentric walls ranging from 3 to 6 in number. They are built of brown and black stones mixed with white creamy soil. They were built on low slopes of yellow rocky hills and on the wadi gravel terrace. Their diameter ranges between 4 m and 8 m and their height varies from 60 cm to 1.10 m high. On the other hand, the Beehive tombs are built on top of ridges and slopes of yellow rocky hills. They are built of crude yellow stones and some of them have entrance facing east. Their diameter ranges between 5 m and 6 m. They have burial chambers in the middle which are from 1 m to 1.50 m in diameter with corbelling and double-skin walls around 80 cm to 1 m thick. They stand to a height of around 1 m to 2 m. Furthermore, the site has yielded a group of stone structures of different shapes and sizes (Plate 252–253). They are square or rectangular in shape with double stone walls around 60 cm–80 cm thick filled with gravel. The stones are black and brown with an average size of around 30 cm. The most interesting structure within this site is a burial ground (Plate 250) that includes more than 45 tombs of different types such as cairns with white creamy soil, possible subterranean Wadi Suq tombs, and possible Umm an-Nar tombs. The majority of them are cairns with white creamy soil with irregular stone walls around 80 cm thick and 6 m to 8 m in diameter. One of these cairns is large and yielded around three concentric walls of around 35 cm thick (Plate 251). The cairn is around 8 m in diameter and 1 m high

(0607666/2528875). Lastly, the southern part of the site includes an Islamic cemetery of oval tombs around 80 cm to 2 m long and 80 cm to 1.20 m wide.

Finds:

The site yielded a number of pottery sherds including 22 Late Iron Age; three Late Islamic and four Recent as well as other Islamic sherds (Middle to Recent). In addition, Tomb 1 yielded a pierced red cylindrical bead (W.D.013: Plate 48, Figure 59); 1.1 cm long and 5 mm diameter.

Al-Fulayj CS.1.5 (068283/2529117), Figure 90:

Size: 187.5 ha.

Structures:

This is al-Fulayj's main date palm village. It was divided into five areas for pottery pick up (CS.1.5.1 to CS.1.5.5). The village consists of an old mudbrick quarter (Plate 254), old agricultural fields and clearance mounds, an Islamic cemetery and possible pre-Islamic tombs (cairns). The village is currently inhabited by a small number of people in which few modern houses can be observed. It is surrounded by date palm groves.

Finds:

The PCAs yielded a large number of pottery sherds of different periods including 28 Umm an-Nar; three Wadi Suq; 25 possible Late Bronze Age; ten Early Iron Age; 28 Late Iron Age; 12 possible Early Islamic–Sasanian; 240 Middle Islamic; 448 Late Islamic and 57 Recent.

Al-Fulayj CS.1.6 (0608893/2529121):

Size: 0.5 ha.

Structures:

This site consists of old agricultural fields with a small date palm grove on a small wadi gravel terrace. They are located around 1 km north al-Fulayj village. The fields are defined by double stone walls around 60 cm thick which extend over an area of around 50 m by 100 m.

Finds:

Few pottery sherds were collected in which nine are Middle Islamic and 15 are Late Islamic.

Al-Fulayj CS.1.7 (0609206/2530861):

Size: 0.54 ha.

Structures:

It only contains five piled stones and other scattered stones of irregular shape on the wadi gravel terrace. The piled stones are around 80 cm to 1 m in diameter and 10 cm to 25 cm high.

Finds:

No finds.

Al-Fulayj CS.1.8 (0608822/2531696):

Size: 3.96 ha.

Structures:

The site is an area of scattered stones of irregular shape with around 27 small stone piles and around six possible circular pre-Islamic tombs about 1–2.50 m diameter with a stone course alignment (Plate 255).

Finds:

No finds.

Al-Fulayj CS.1.9 (0609174/2532271):

Size: 0.06 ha.

Structures:

Twelve stone piles on a flat slope between two yellow rocky hills with a diameter between 30 cm and 1 m (Plate 256).

Finds:

No finds.

A.1.2- AL-KHURAIS VILLAGE (CS.3):

The survey at this village included the main al-Khuraish village and its surrounding areas as well as an area of 5 km² away from the village. Al-Khuraish is a small date palm village on the northern side of the main road connecting Izki to Sinaw. It is located on Wadi Andam gravel terraces (Plates 257–258) about 1 km away from Khadra Bani Dafa'a village. It is located between two ranges of black rocky hills from the east and the west. Al-Khuraish includes a small number of modern houses mixed with old mudbrick buildings. The survey results yielded the following sites (Map 39):

Al-Khuraish CS.3.1 (0603943/2519296), Figure 91:

Size: 432 ha.

Structures:

This is the main village. It was divided into six areas for pottery collection (CS.3.1.1 to CS.3.1.6). Area one consists of old mudbrick buildings with two towers (Plate 259) as well as a *falaj* channel and a group of dried wells (*Thuqab*). Area two, close to the main road, yielded a high density of slag concentration and pottery sherds (Plate 260) with possible stone structure remains stone scatters and one mudbrick rectangular building. Area three includes the main date palm groves and the modern houses, while area four consists of an Islamic cemetery, old agricultural fields and clearance mounds (Plate 261). Area five consists of a group of scattered stones, old agricultural fields and clearance mounds, while area six showed scattered stones, a small date palm grove and well-sections.

Finds:

The PCAs yielded a large number of pottery sherds including 15 Umm an-Nar, two Early Iron Age, 445 Middle Islamic, 853 Late Islamic and 13 Recent.

Al-Khuraish CS.3.2 (0605205/2516910):

Size: 1.25 ha.

Structures:

The site yielded scattered stones of irregular shape and some piled stones around 80 cm to 1 m in diameter and 10 cm to 20 cm high. It also yielded stone wall remains built of black and brown stones on a black gravel wadi terrace. They are around 60 cm thick and filled in the middle with gravel.

Finds:

Seven Islamic pottery sherds were collected from the surface, which are possible Late Islamic-Recent in date.

Al-Khuraish CS.3.3 (0605085/2517253):

Size: 0.0375 ha.

Structures:

This is a rectangular stone structure around 14 m by 4 m in size and built of black wadi stones on a black gravel terrace. It has double stone walls around 50 cm thick and filled in the middle with gravel. Its north-western wall and part of its western wall are missing. There are also a few scattered stones around this structure of piled stones around 40 cm to 80 cm in diameter.

Finds:

No finds.

Al-Khuraish CS.3.4 (0604324/2517572):

Size: 2.925 ha.

Structures:

The site consists of a group of piled stones of circular or semi-circular shape around 40 cm to 1.50 m in diameter and 10 cm to 25 cm high. Two of these piled stones are possibly pre-Islamic tombs around 1.50 m in diameter, but without any stone alignment (Plate 160–161). They are south of al-Khuraish village and west of the main road connecting Izki and Sinaw.

Finds:

A number of 71 Late Iron Age pottery sherds were collected from the site's surface.

Al-Khuraish CS.3.5 (0603602/2518223), Figure 70:

Size: 108 ha.

Structures:

The site includes an area that is located on the Wadi Andam terrace to the south–west of the main road connecting Izki with Sinaw. The area is surrounded by black rocky hills from the west and the wadi bed from the east. It is designated as a natural park where several stone structures, stone walls remains, tombs and old agricultural fields were found, and divided into three areas of pottery pick-up (CS.3.5.1 to CS.3.5.3). The first area (CS.3.5.1; Plates 168–169) consists of several stone structures of different sizes and shapes that were built on the slopes of black rocky hills and on the wadi terrace. These structures appear to be built with stone foundations almost 1 m in height then the rest of the building was completed using mudbrick the remains of which can still be noticed. The walls are 45 cm to 80 cm thick. The second area (CS.3.5.2; Plates 164–167) includes stone structures on top of a black rocky hill surrounded by a stone wall with an arched corridor and round tower. There are around 21 square and rectangular stone structures with double stone walls filled with gravel. Their thickness varies between 30 cm and 60 cm. The corridor is around 4 m long and 2 m wide while the arch is around 1.50 m thick, 2 m wide and 3 m high (the total corridor height with the arch is around 4.50 m). Both the corridor and its arch are built of mud and brown, black and grey stones. The mud was made to serve as a plaster to strengthen the walls and to fix the stones. The corridor is on the southern side and the tower on the western side of the outer wall. The tower is also built of stones that are plastered with mud and is around 4 m in diameter. It is preserved in one part to around 1.50 m high. Moreover, area three (CS.3.5.3; Plate 170) comprises several stone-walled agricultural fields. The walls are 60 cm to 80 cm thick and filled with gravel. The best preserved examples stand to approximately 1.50 m high. There are also several structures with square, rectangular or circular shapes that are scattered within these fields with walls that are around 80 cm thick. There are also two possible pre-Islamic tombs of circular shape around 1.50 m in diameter (0603698/2517321), and one Islamic tomb on a

low rocky hill around 50 m away from the fields. It is oval in shape, around 80 cm wide and 1.20 m long (0603661/2517411).

Finds:

A large number of pottery sherds was collected from these three areas including 42 Middle Islamic and 151 Late Islamic sherds from CS.3.5.1; 12 Umm an-Nar, three Late Iron Age, 42 Middle Islamic, 125 Late Islamic and 32 Recent from CS.3.5.2; as well as 52 Middle Islamic and 118 Late Iron Age from CS.3.5.3.

Al-Khuraish CS.3.6 (0602975/2516184):

Size: 1.50 m in diameter

Structures:

It includes one possible circular pre-Islamic tomb with a diameter of around 1.50 m. It is built of brown and black stones on a black gravel wadi terrace (Plate 262).

Finds:

No finds.

Al-Khuraish CS.3.7 (0604209/2518650), Figure 71:

Size: 13.5 ha.

Structures:

This is an old smelting site that consists of an area with large concentrations of slag, stone structures and an Islamic cemetery. The site was divided into five areas according to its features (CS.3.7.1 to CS.3.7.5). The first area (CS.3.7.1; Plate 174) includes an Islamic cemetery of around 60 oval tombs with head-stones of a north–south orientation. Their sizes vary from 1 m to 2 m long and 60 cm to 80 cm wide. They consist of one stone course alignment filled with gravel and earth. The second area (CS.3.7.2; Plate 171) consists of large concentrations of slag surrounded by stone structures. Area CS.3.7.3 (Plates 172 & 175–176) consists of around fourteen rectangular and square stone structures of different sizes built with double stone walls around 20 cm to 35 cm thick and filled with gravel. These structures are found either isolated or in groups with different sizes range from 1.50 to 3 m wide and 2 to 4 m long. Area CS.3.7.4 yielded possible pre-

Islamic tombs of circular shape that are built of brown and black stones with around 1.50 m in diameter. It also yielded possible stone wall remains of around 5 m and a well section of around 2 m deep. Finally, area CS.3.7.5 (Plate 173) yielded more than 12 stone structures that are built on top of a black gravel outcrop and its slope. They are built of brown and grey stones of different sizes and shapes such as square and rectangular with stone walls of around 40 cm thick. The structures either isolated or units.

Finds:

The site yielded a large number of Islamic pottery sherds in which a collection was made, including 148 Middle Islamic, 255 Late Islamic and one Recent. There are also other possible Middle to Recent sherds were collected. There is also a large number of slag resulted from the copper smelting.

Al-Khuraish CS.3.8 (0603661/2517411), Figure 92:

Size: 65.25 ha.

Structures:

Two black rocky hills located around 40 m west of al-Khuraish village and on the eastern terrace of Wadi Andam. Around 30 black cairns were counted, which range in size between small, medium and large (Plates 263–264). Their diameter varies from 2 m to 8 m. Some of them display concentric walls, sometimes up to six walls, with other possible sub-division walls in the middle. They are around 30 cm to 80 cm in height, and some cairns consist of white creamy soil. The small and medium cairns consist of 2–3 walls 1 m to 3 m in diameter. The site also yielded some piled stones 40 cm to 80 cm in diameter and 20 cm to 30 cm high. In addition, down the hill along its slope, there is a slag concentration that extends over an area of around 80 m by 15 m.

Finds:

The cairns are badly disturbed and yielded scattered human bone fragments and four Early Iron Age pottery sherds. The site surface also yielded 44 Late Islamic pottery sherds scattered all over the site. In addition to the large number of slag pieces within the slag concentration area, some pottery sherds that include smelting residue were collected (Plate

265), indicating the possible use of pottery in the smelting operation. Other finds included two shells from CS.3.8, Tomb 1 (W.D.056–W.D.057: Plate 266).

Al-Khuraish CS.3.9 (0603906/2518402):

Size: 1.3 ha.

Structures:

This is an Islamic cemetery on the eastern gravel terrace of Wadi Andam with around 178 oval tombs (Plate 267). They are built with head-stones of north–south orientation and consist of one stone course alignment filled with gravel and earth. Their size varies from 60 cm to 1 m wide and from 1 m to 1.50 m long.

Finds:

No finds.

Al-Khuraish CS.3.10 (0602977/2520386):

Size: 1.375 ha.

Structures:

The site consists of a cemetery with a group of pre-Islamic and Islamic tombs south of al-Majazah village (Plates 268–269). There are 16 pre-Islamic (possible Iron Age?) tombs similar to those found at site CS.2.1 in the Upper Wadi Andam. In addition, one rectangular building built of stone and mudbrick of around 4 m by 2.50 m was found within the cemetery (Plate 270). This could be the place where they prepared (wash and wrap) the dead to be buried.

Finds:

No Finds.

A.1.3- AL-QARYATAIN VILLAGE (CS.4):

Size: 570 ha.

Al-Qaryatain is a large date palm village surrounded by Wadi Qant, which meets Wadi Andam near Khadra Bani Dafa'a, from the north–western and southern parts (Plates 271–272). The main road separated the village into two parts: the denser and larger part is the

southern one that includes the main date palm groves and the old and most of the modern houses, while the northern part includes the few remaining modern houses. The area is surrounded by black rocky hills. The survey results yielded the following group of sites (Map 40):

Al-Qaryatain CS.4.1 (0595651/2532231), Figure 93:

Size: 314.5 ha.

Structures:

This includes al-Qaryatain village with the large very dense date palm groves located on a broad wadi terrace (Plate 273). The village was divided into six areas for pottery pick-up (CS.4.1.1 to CS.4.1.6). Area one (CS.4.1.1) includes al-Qaryatain old village that was mainly built on a slope of black rocky hill and partly on the wadi terrace (Plates 213–216). Most of the buildings are in a good state of preservation with stone foundations. The rest of the construction was completed using mudbrick mixed with straw and gravel. Area two (CS.4.1.2) yielded stone structures which built on top of a black rocky hill in the middle of the village around 15 m away from the main road, indicate a possible fortification (Plate 274–275). The structures are square and rectangular in shape with double stone walls around 30 cm to 50 cm thick. They are built of brown and black stones. The structures are surrounded by a stone wall that extends along the edge of the black rocky hill and turns around it. The wall is about 1.20 m high and 50 cm thick. In addition, area three (CS.4.1.3) includes the western part of the village's date palm groves with stone structure remains and an Islamic cemetery. The stone structures have walls around 50 cm to 60 cm thick and around 80 cm high. They are badly disturbed but they look like they were square or rectangular. The Islamic cemetery has oval tombs of one stone course alignment filled with gravel and earth. They have head-stones. Their size ranges from 1 m to 2 m long and 80 cm to 1 m wide. This area also includes old and modern houses. Area four (CS.4.1.4) includes the village's southern date palm groves, which also includes an Islamic cemetery and old stone agricultural fields. Moreover, area five (CS.4.1.5) includes the eastern part of the main date palm groves. It consists of old and modern houses, as well as an Islamic cemetery of oval tombs similar to those found at area three. Finally, area six (CS.4.1.6) includes the southern date palm groves of the village. It also includes an Islamic cemetery.

similar to those at areas three and five, and old stone agricultural fields. The agricultural fields have stone walls around 60 cm to 80 cm thick filled with gravel and over 1 m high.

Finds:

The PCAs within this village yielded large quantity of pottery sherds of different periods, including two sherds of Umm an-Nar, seven Late Iron Age, 473 Middle Islamic, 847 Late Islamic and 177 Recent. Other finds included one grey fragment of softstone vessel's lid of possible rectangular or square vessel from CS.4.1.5 (W.D.033).

Al-Qaryatain CS.4.2 (0594662/2532747), Figure 93:

Size: 5.98 ha.

Structures:

The site consists of four Hafit cairns on top of a black rocky hill that is located north of al-Qaryatain village (Plate 177). They are built of black and brown stones and are around 5 m to 6 m in diameter and 1 m to 2 m high. No walls can be identified. In addition, down this hill and on the black gravel terrace, there are five stone circular structures, as well as a group of piled stones (Plate 178).

Finds:

A total of 68 Middle Islamic pottery sherds were collected from both the cairns and structures.

Al-Qaryatain CS.4.3 (0593958/2533038), Figure 93:

Size: 1.52 ha.

Structures:

Here are two possibly disturbed pre-Islamic cairns built of brown and black stones with white creamy soil and a diameter of around 10 m (Plate 91–92). One of the tombs (Tomb 2) shows signs of three concentric walls. Both tombs are close to an Islamic cemetery that belongs to Hamaithah village. The finds demonstrate that these tombs were used during the Early and Late Iron Age periods, although the finds were found scattered on the surface around the tombs, possibly as a result of their disturbance.

Finds:

The surface around these disturbed cairns yielded a large number of finds including pottery sherds, fragmentary bones and fragments of softstone. Among the collected pottery are 35 Early Iron Age sherds and 66 Late Iron sherds. There is also one fragment of a softstone vessel (W.D.107: Plate 93). It is a fragment of a rectangular or square softstone vessel with three incised horizontal lines just under a straight rim approximately 4 mm thick. It is gray to greenish in colour. A complete shell was also found (W.D.108: Plate 94).

Al-Qaryatain CS.4.4 (0596474/2531106):

Size: 0.4 ha.

Structures:

The site includes a group of stone structures of square, rectangular or circular shape (Plates 100 & 102). They are possibly cairns and were built on a black rocky hill. The cairns are around 1.50 m to 2 m in diameter. In addition, there are possible observation or firing positions that include stone a wall barrier (Sanger?) facing the wadi (Plate 103). Furthermore, one possible Islamic tomb and a possible horseshoe structure were found (Plate 101). The latter is around 90 cm high with an open part facing west around 60 cm wide. There are also other piles of stones (Plate 99).

Finds:

The site yielded pottery sherds in which 56 are Early Iron Age, five Late Islamic and around 26 Islamic sherds of possible Middle Islamic to Recent times.

Al-Qaryatain CS.4.5 (0596353/2530421):

Size: 0.255 ha

Structures:

This area consists of stone scatters, semi-circular structures and circular as well as possibly square structures around 1 m to 2 m in diameter for the circular, and around 2 m by 1.50 m for the square. The site also includes one cairn (0596366/2530371) with six concentric badly disturbed walls around 10 m in diameter. There are signs of other sub-

division walls in the middle of the tomb of white creamy soil (Plate 276). The site also yielded a stone wall extending along the wadi. It is approximately 50 cm thick and 40 cm high (0596366/2530371). Other possible stone wall remains were noticed on the site. Finally, the site yielded possibly pre-Islamic tombs of oval shape around 1 m wide and 2 m long filled with small piled stones and surrounded by one, possibly stone, circular alignment (Plate 277).

Finds:

The site yielded 51 Islamic pottery sherds of possible Late Islamic to Recent as well as four sherds of Recent times.

Al-Qaryatain CS.4.6 (0596553/2530045):

Size: 0.004 ha.

Structures:

The site consists of three horseshoe stone structures with an open part around 1 m wide (Plate 278). They have one stone course wall around 30 cm thick and 1 m high.

Finds:

No finds.

Al-Qaryatain CS.4.7 (0596274/2529593):

Size: 0.4 ha.

Structures:

The site consists of stone wall remains built on the slope of a black rocky hill. Its well preserved parts are around 1 m high and 40 cm thick (Plate 279). There are also two stone piles one of which could be a pre-Islamic tomb (0596189/2529496). This is around 1 m long, 80 cm wide, and around 30 cm high (Plate 280). It also consists of five circular stone structures around 2 m to 2.50 m in diameter (Plate 281).

Finds:

No finds.

Al-Qaryatain CS.4.8 (0594570/2531817):

Size: 0.77 ha.

Structures:

The site includes an Islamic cemetery with 570 tombs built on a black gravel wadi terrace. They are oval in shape, around 1 m to 2 m long, 80 cm to 1 m wide, and filled with gravel. They are surrounded by a wall with a one stone course alignment. In addition, there are two stone walls forming what could be the boundary of an agricultural field on the western side of the cemetery. The walls are around 90 cm high and 60 cm thick, and filled in with gravel.

Finds:

No finds.

Al-Qaryatain CS.4.9 (0597278/2532413):

Size: 12 m diameter

Structures:

The site consists of a cairn built of brown and black stones mixed with white creamy soil. It is around 4 m high and includes may be eleven burial chambers all of which are badly disturbed. They seem to be part of two main chambers (Plates 282–283). These two chambers appear to be circular and around 40 cm high and 80 cm in diameter. The entire tomb is around 12 m in diameter.

Finds:

The cairn yielded 14 Late Iron Age pottery sherds and seven Islamic sherds of possible Late Islamic to Recent times.

Al-Qaryatain CS.4.10 (0598139/2532007):

Size: 3 m diameter

Structures:

This is a semi-circular stone structure built of yellowish-brown stones around 3 m in diameter (Plate 104-105).

Finds:

No finds.

Al-Qaryatain CS.4.11 (0600025/2531608):

Size: 0.7 ha.

Structures:

Here is an area of scattered and piled stones with other structures. They that are scarcely visible on the surface with only one stone course alignment (two examples). Could they be subterranean tombs? They are built of brown and black stones on a black wadi gravel terrace and 1.20 m in diameter.

Finds:

No finds.

Al-Qaryatain CS.4.12 (0601389/2529947), Figure 72:

Size: 20.25 ha.

Structures:

The site includes an area of stone structures on a black rocky hill surrounded by old agricultural fields on the east and an Islamic cemetery from the west. They are near the junction that leads to al-Qaryatain village coming from the road that connects Kharma with al-Ghoryeen. The site was divided into three areas (CS.4.12.1 to CS.4.12.3). The first area (Plates 179–180) consists of a black rocky hill with a group of square and rectangular stone structures with corridors or courtyards between them. They are built of double stone walls around 50 cm thick filled with gravel. The structures are linked to form one complex. The second area (Plates 181–184) includes old agricultural fields with walls built of brown and black stones. The well preserved part of these walls stands to a height of around 1.20 m. There is a group of stone piles scattered all over these fields. These piles are of different sizes and shapes. The third area (Plate 185) within this site consists of an Islamic cemetery of 76 oval tombs with head-stones of north–south orientation. They are surrounded by a one stone course alignment filled with gravel and earth. The tombs are around 1 m to 1.50 m wide and around 1 m to 2.50 m long.

Finds:

The site yielded a large number of Islamic pottery sherds from all the areas, including one Early Islamic, 39 Middle Islamic, 98 Late Islamic and two of Recent time.

Al-Qaryatain CS.4.13 (0598677/2525981):

Size: 20 ha.

Structures:

Here there are five cairns and four Beehive tombs spread over a large area of gravel terrace (Plates 18 & 95). The cairns are built of brown and black stones with white creamy soil, while the Beehives are located on top of a brownish-white rocky hill, and built of very rough, possibly travertine white stones. The cairns are around 10 to 12 m in diameter and consist of four to six concentric walls and other possible sub-division walls in the middle. These Beehive tombs include a burial chamber of around 1 m diameter at the base. They are built of two double-skin stone walls (inner and outer) each of which is around 1 m thick. The stones are different in size with a longest measurement of around 35 cm and a diameter of around 8 m.

Finds:

All the tombs are disturbed and several of them yielded a number of artefacts. Tomb 8 yielded 26 Early Iron Age pottery sherds and seven beads of which all are pierced (W.D.002 to W.D.008; Plate 96 & Figure 59). Among these are four (W.D.002 to W.D.005) stone pierced black rounded beads, one (W.D.006) is red carnelian and cylindrical, 2.5 cm long and 4 mm diameter. Another is a (W.D.007) pierced stone white rounded bead, and a third (W.D.008) is a pierced white-brown disc stone bead. In addition, Tomb 9 yielded 12 Early Iron Age pottery sherds and 11 Islamic sherds as well as one bead (W.D.021; Plate 84 & Figure 59) and a complete shell (W.D.022, Plate 97). Tomb 1 only yielded one pierced spindle-whorl (W.D.119; Plate 98 & Figure 58) of gray stone with an outer diameter of 23 mm and an 8 mm diameter hole.

Al-Qaryatain CS.4.14 (0599742/2526372):

Size: 0.36 ha.

Structures:

The site consists of eight cairns similar to those found at site CS.4.13 (Plate 19). They are built of brown stones with white creamy soil. Their diameter varies from 8 m to 10 m. They consist of four to six concentric walls which, however, are hardly distinguishable in some cairns. In addition, there are possible sub-division walls in the middle.

Finds:

Among the tombs yielded grave goods is Tomb 3 that yielded two Late Iron Age pottery sherds and 28 Late Islamic sherds, while Tomb 8 yielded two Early Iron Age pottery sherds.

Al-Qaryatain CS.4.15 (0599359/2527479):

Size: 0.48 ha.

Structures:

The site yielded ten Hafit black cairns built on a black rocky hill near Kharma village. They are around 3 m to 5 m in diameter and from 80 cm to over one meter high.

Finds:

No finds

Al-Qaryatain CS.4.16 (0600346/2528163):

Size: 6 ha.

Structures:

This site consists of eight cairns of rough white stones built on a wadi with a brownish-white rocky terrace (Plate 284). They stand to around 2 m to 3 m high, and around 8 m in diameter. They are built of rough whitish stones similar to those used in the Beehive tombs at site CS.4.13.

Finds:

No finds

Al-Qaryatain CS.4.17 (0602514/2530434):

Size: 5.25 ha.

Structures:

The site includes three cairns with white creamy soil. They are located near and opposite to the Wadi Andam Health Centre at al-Ghoryeen (Plate 285).

Finds:

No finds

Al-Qaryatain CS.4.18 (0599864/2525206):

Size: 6 m

Structures:

This site includes only one cairn with white creamy soil similar to those found in the previous sites.

Finds:

No finds

Al-Qaryatain CS.4.19 (05971884/2531049):

Size: 6-7 m

Structures:

The site consists of two Hafit cairns very similar in size and construction. They are located around 1 km east of al-Qaryatain village. They are around 2 m high and 6 m to 7 m in diameter (only the northern one was visited). Their location is situated on the edges of two black rocky hills. They form a gate to the village. They are built of black rocks and the visited northern cairn has a visible outer wall, clearly constructed not as a Beehive but as a cairn. Its burial chamber is around 1.5 m x 1 m.

Finds:

No finds

A.1.4- AL-KHASHBAH VILLAGE (CS.5):

Size: 912.5 ha.

A survey was conducted at al-Khashbah village which is located half-way between Khadra Bain Dafa'a and Sinaw. It is around three kilometres from the main road connecting Izki with Sinaw. The village can be divided into three parts of date palm groves that are surrounded by old mudbrick and modern houses as well as pre-Islamic sites that are more concentrated on the gravel hills and wadi terraces around the village (Plates 286–287). The village, nowadays, does not seem to have a large population as we only noticed a small number of modern houses which do not exceed eighty. The first visit to the village in late December 2004 showed that there was good potential for finding pre-Islamic sites. Nineteen sites were found in this area, including the main village, and within each site a group of features was also identified (Maps 41–42).

Al-Khashbah CS.5.1 (0606930/2506528), Figure 51:

Size: 473 ha.

Structures:

Al-Khashbah, the main village, is surrounded by the main date palm groves: one in the north, a second in the south and a third in the west. The biggest grove is the southern one where the modern houses and other services are located. The village is located on both sides of the Wadi Andam tributary but the main part is located on the east bank. This area was also divided into six areas for pottery collection. Area one (CS.5.1.1) (size 1.2 ha.) includes the western part of the date palm grove that is located on the western bank of the wadi. This area has few date palms.

Area two (CS.5.1.2) (size 4.41 ha.) includes the western part of the main grove. It was also divided into four sites. The first (CS.5.1.2.1) (size 0.18 ha.) includes a mound, which might have been caused by either clearance activity or collapsed mudbrick buildings (Plates 36–37). A large number of pottery sherds of different periods are scattered on its top and within its cut-section layers (Plates 38–39). It is around 3.5 m high and is located east of the main groves. The mound itself has been disturbed and bulldozed by the local people. Indeed all its eastern and southern parts have been bulldozed. Mudbrick layers

were noticed on the mound and its edges, in particular on its eastern part. This mound could be an old Umm an-Nar occupation place that has collapsed. May be at a later stage the people found a higher place where they built their mudbrick buildings on top of the debris during the later, possibly Islamic, periods. Another possibility is that it is a clearance mound from the adjacent date palm groves where Umm an-Nar deposits were buried and, after being cleared, were deposited again as a mound which later was used as an elevated site on top of which to build mudbrick building. The second site (CS.5.1.2.2) (size 0.015 ha.) includes a cut-section with Umm an-Nar sherds (Plates 40–41). It could be part of the clearance mounds that are very close to the above-mentioned mound. It has different layers including, starting from the top: 1) a layer of possible mudbrick remains; 2) a layer with a few Umm an-Nar pottery sherds; 3) a layer of gravel; 4) another layer of mudbrick with traces of ash; and (5) a last layer consisting of stone foundations around 60 cm high. The third site (CS.5.1.2.3) (size 0.125 ha.) yielded an Islamic cemetery with two types of tomb (Plate 42). One consists of around 57 tombs built with a one grey stone course with circular alignment and head-stones filled with gravel. The tombs are 1 m to 2 m long and 80 cm to 1.20 m wide. The other type of tombs was built of yellow thin slabs with some small black and grey stones. They are oval in shape around 80 cm (infants) to around 1.50 m (adults) long, and around 40 cm (infants) to 1 m (adults) wide. There are nine tombs concentrated on the eastern side of the cemetery, which has yielded Umm an-Nar pottery sherds. The fourth site (CS.5.1.2.4) consists of clearance mounds from the date palm groves and includes Umm an-Nar and other Islamic pottery sherds.

Area three (CS.5.1.3) represents the southern part of the main date palm groves. It includes clearance mounds, two mudbrick and stone round towers, as well as a group of piled stones 1 to 2 m in diameter and around 15 to 25 cm high. It also includes a group of paved stones of black gravel stones on a low black gravel hill. These could be platforms for possibly different types of structures such as wooden huts or tents. There are cleared areas around these possible platforms. In addition, Area four (CS.5.1.4) at the western end of the main groves, is located near the wadi bed. There is a one mudbrick and round stone tower. Area five (CS.5.1.5) includes the main date palm groves where the local people live and the groves are located. Area six (CS.5.1.6) represents the area to the north of the main date palm groves where the old mudbrick houses and modern houses are located.

Finds:

The PCAs (CS.5.1.1 to CS.5.1.6) yielded large number of pottery sherds of different periods. These include 244 Umm an-Nar sherds, one Late Iron Age, 100 Middle Islamic, 597 Late Islamic and 71 Recent. In addition, site CS.5.1.2.1 yielded many Umm an-Nar sherds that found on top of the mound and within its cut-section layers, in particular the western and southern parts. Other sherds were also found on the mound and around it. Among the collected sherds are 154 Umm an-Nar sherds, 118 Late Islamic sherds and four of Recent times. Other finds included one large complete shell from CS.5.1.4 (W.D.093).

Al-Khashbah CS.5.2 (0605994/2506501), Figure 51:

Size: 42.75 ha.

Structures:

A yellow rocky hill with cairns and pottery scatters. Down the hill there are three Umm an-Nar towers with stone and pottery scatters. This site was sub-divided into the five following sites:

CS.5.2.1 (0605803/2506363) is an Umm an-Nar rectangular tower about 30 m by 20 m (Plate 43). It is built of large yellow stone blocks of different shapes. The stone blocks are 80 cm to 1.50 m long, sometimes more (Plate 44). Rock drawings were found on some of these stone blocks which mostly represent scenes of a horse or camel and their riders (Plate 45). The surface is covered with a large number of Umm an-Nar pottery sherds. There are around four piled stones, possibly cairns, on top of the tower, which could be a later addition. They are around 1 to 2 m in diameter and 10 cm to 20 cm high.

CS.5.2.2 (0605822/2506570) is an Umm an-Nar semi-square tower with four round corners (Plate 46). It is badly disturbed and hardly distinguishable. Wall remains can be noticed at the northern end in which yellow medium and large slabs or rocks were used in constructing this tower. Few Umm an-Nar pottery sherds were picked.

CS.5.2.3 (0606698/2506686) is an Umm an-Nar round tower around 25 m in diameter and built of medium and large yellow stones (Plate 47). It consists of one stone course wall around 40 cm high. Few Umm an-Nar sherds were picked up.

CS.5.2.4 (0605899/2506699), size 0.16 ha., is an area located around 15 m from the square Umm an-Nar tower. It consists of stone and Umm an-Nar pottery sherd scatters (Plate 48). The area is disturbed by the main road construction works.

CS.5.2.5 (0606045/2506464), size 3 ha., is a yellow rocky hill that consists of 18 yellow cairns on the top. These are 8 m to 12 m in diameter. Some have 2 to 4 possible concentric walls 30 cm to 40 cm thick. There is also an area about 200 m by 30 m of stone and Umm an-Nar pottery scatters of possibly of Umm an-Nar structures (Plate 49). The total area extends from the rectangular tower to the round tower.

Finds:

Among the collected pottery sherds from site CS.5.2 are 424 Umm an-Nar sherds: 121 sherds from CS.5.2.1; 42 from CS.5.2.2; nine from CS.5.2.3; 84 from CS.5.2.4 and 168 from CS.5.1.5. There are also few Islamic sherds such as Late Islamic and Recent.

Al-Khashbah CS.5.3 (0606184/2506836), Figure 51:

Size: 0.3 ha.

Structures:

Here is a yellow rocky hill that consists of 12 yellow cairns with possibly three to six concentric walls, and diameters of 3 m to 8 m (Plate 20). They are clustered or attached to each other by a possible stone wall around 80 cm thick; however, three of them are isolated.

Finds:

No finds

Al-Khashbah CS.5.4 (0606181/2507367), Figure 51:

Size: 3 ha.

Structures:

Here are 12 yellow cairns built of yellow limestone slabs with two or more circular walls (Plate 53). They are about 1 km north-west of al-Khashbah village and are distributed within several date palm gardens. One large cairn around 2 m high (0606300/2507531)

and around 8 m in diameter is located within one of these gardens. Two badly disturbed tombs showed large numbers of human bone fragments but only one bead and three pottery sherds. A good example of these tombs is tomb (0606193/2507423) that consists of two to three concentric walls of yellow stones with an average size of 35 cm. Each wall is around 30 cm thick. The tomb itself is circular around 6 m in diameter and is preserved to a height of around 25 cm. This tomb looks like some of the excavated tombs at Tawi Salim from the 3rd millennium BC at al-Qabil which was excavated by British Expedition (de Cardi et al. 1979). It has sub-division walls in the middle forming several possible chambers.

Finds:

The three pottery sherds are possible Islamic and the bead (W.D.019) is small, pierced, with rounded or disc shape and 4 mm diameter.

Al-Khashbah CS.5.5 (0607600/2505543), Figure 51:

Size: Cairn 6 m diameter

Structures:

Here are two cairns built on a low black gravel hill about 100 m to the south of the school of, and 80 m west of the road. One is badly disturbed and the other may have two concentric walls but they are hardly visible. The cairns are built of small yellow and black stones with a diameter of around 6 m and a height of 20 cm.

Finds:

No finds

Al-Khashbah CS.5.6 (0607396/2506535), Figure 51:

Size: 1.75 ha.

Structures:

Here are twelve black cairns on a group of black gravel hills to the east of the village and the asphalt road (Plates 288). The cairns are 8 m to 12 m in diameter and built of yellow and grey stones with a maximum dimension of 30 cm.

Finds:

No finds

Al-Khashbah CS.5.7 (0607221/2506844), Figure 51:

Size: 20 m diameter

Structures:

This is a badly disturbed round Umm an-Nar tower found east of the village (Plate 50). It is built of large stone blocks but has recently been destroyed by the local people who removed the stone blocks and piled them along the wadi edge (Plate 51). One new cement wall has been built on top of one of the tower's parts. The tower's diameter is not clear but could be around 20 m.

Finds:

Only seven Early Iron Age pottery sherds were collected from the tower.

Al-Khashbah CS.5.8 (0608720/2506647), Figure 73:

Size: 236.25 ha.

Structures:

This is an area surrounded on all sides by yellow rocky hills. Most of the archaeological features are located on top of these hills or on their slopes as well as on the wadi edges. Al-Khashbah CS.5.8 seems to be an old abandoned village consisting of stone mudbrick structures with stone foundations, stone wall remains, cairns (most of them are Beehive), old agricultural fields, *falaj* remains, clearance mounds and possibly a small dam to the south. The site was sub-divided into five areas according to its features. Area CS.5.8.1 consists of a group of structures built of stone foundations around 1.50 m high, and then completed using mudbricks (Plates 204-206). They are built on top of two yellow rocky hills and on their slopes as well as around them. The stone foundations are built without any plaster and are 40 cm to 50 cm thick. The buildings consist of two to three rooms. A stone-mudbrick mosque was also found with a place for washing. The site is crossed by a dried *falaj* channel. The total size of the mosque is around 40 m by 15 m. Area CS.5.8.2 includes large agricultural fields on the west and south of the village which are surrounded

by stone walls around 30 cm to 50 cm wide with gravel in the middle (Plate 207–208). In some parts they are well preserved to around 80 cm high and were built without plaster or mortar between the stones. There are some yellow stone concentrations or accumulations in the middle of these fields possibly from collapsed associated structures. One of these structures is more or less oval in shape approximately 15 m x 7 m and filled with earth and gravel (0608595/2506529). In addition, *falaj* or irrigation channels were found within the fields. There are also clearance mounds around these fields. Moreover, Area CS.5.8.3 consists of a group of cairns or Beehive tombs on yellow rocky hills to the north, south and east of the village with cairns on the slopes as well as on the wadi terraces (Plate 209–210). Around 50 cairns were counted. They are built of crude yellow stones some with white creamy soil. They are around 6 m to 8 m in diameter and 60 cm to 1 m high. In addition, 23 Beehive tombs were found. These are mostly built with two double-skin stone walls each of which is about 80 cm thick. They stand to a height of around 1 m to 2 m. The entrances facing east are around 50 cm in height and width with a roofing stone or lintel. Diameters range from 5 m to 6 m. Area CS.5.8.4 comprises the remains of a *falaj* channel. These remains extend over a large area. The channel itself was around 80 cm to 1 m wide and built of small and medium-sized yellow limestone slabs with a maximum dimension of 30 cm. It was plastered with mud or mortar to fix the stones and to allow the water to run easily. The channel is covered with large yellow slabs as a roof cap stones. The stones are on average around 1 m x 60 cm. The last area is CS.5.8.5 which includes a stone wall around 3 m thick and filled with earth and gravel. It stands to a height of around 1 m and was built on the south–western part of the wadi bed. The location of this wall and its thickness may possibly indicate a dam? The wall is around 8 m long and 3 m thick.

Finds:

Among the collected pottery sherds from this site are six Middle Islamic and 88 Late Islamic sherds with few other possible Islamic sherds.

Al-Khashbah CS.5.9 (0605251/2506155), Figure 51:

Size: 32.5 ha.

Structures:

Site CS.5.9 is a burial ground with tombs of yellow stones and around 6 m to 8 m in diameter. There are two to four concentric walls around 50 cm thick with possible other sub-division walls in the middle forming several possible chambers (Plates 52 & 289). A large number of Umm an-Nar pottery sherds were picked up from the surface. Most of these tombs are disturbed and human bones fragments were noticed in some of the tombs. The tombs look like 'Tawi Salim' tombs. The tomb field is located in the western part of the village on a wadi gravel terrace and is surrounded on the west by a small yellow rocky hill. Some of the tombs are preserved to around one stone course wall around 30 cm high, while others are preserved to a height of 1 m to 2 m. Some stone walls consist of one course; they are either square or rectangular structures built on a low gravel surface. They were found in the western part of the field. Moreover, to the west, between the field and the yellow rocky hill, there are 53 Islamic tombs with tomb head-stones (Plate 290). They are oval in shape and built with a yellow stone course alignment and filled with earth and gravel. They are from 1 m to 1.20 m wide and 1.50 m to 3 m long.

Finds:

The site yielded a large number of Umm an-Nar pottery sherds in which 323 sherds were collected. Moreover, among the collected sherds is one possible Wadi Suq sherd and four Late Islamic.

Al-Khashbah CS.5.10 (0606053/2503718):***Size: ?******Structures:***

Here are 39 cairns on top of black rocky hills connected to each other to the south and south-west of the village (Plates 21–22). They stand around 1 m to 3 m high, and 6 m to 10 m in diameter. They are built of mainly black but sometimes yellow stones as well as white creamy soil. The site also consists of a rectangular stone structure of one stone course alignment around 8 m x 3 m in size. It is built on a black gravel hill of black stones and filled with gravel and black stone (0606248/2504622).

Finds:

Different tombs yielded a group of grave goods as the following:

- Tomb 1 yielded 13 Late Iron Age pottery sherds.
- Tomb 2 yielded 23 Early Iron Age pottery sherds; 42 Late Islamic pottery sherds; one pierced white rounded stone bead (W.D.017, Plate 106) with ca. 6 mm diameter and 3 mm hole-diameter; one green shiny stone (W.D.018: Plate 291); and Iron/copper earring of 3.2 cm diameter (W.D.130; Plate 107 & Figure 58).
- Tomb 4 yielded four Umm an-Nar pottery sherds; and one green shiny stone (W.D.020: Plate 291).
- Tomb 5 yielded 28 Late Iron Age pottery sherds and two Late Islamic pottery sherds.
- Tomb 9 yielded 12 Late Islamic pottery sherds.
- Tomb 13 yielded 13 Late Iron Age and four Late Islamic pottery sherds.
- Tomb 27 yielded six Late Islamic pottery sherds and one red-orange cylindrical stone bead (W.D.011; Plate 84 & Figure 59) with 4 mm diameter and 1.4 cm

Al-Khashbah CS.5.11 (0608879/2504375):

Size: ?

Structures:

The site includes yellow rocky hills around 1 km to the east of the village, which have twelve Beehive tombs on their tops. The tombs' height is around 2 m to 3 m with two double-skin stone walls each of which around 80 cm thick. They have burial chambers in the middle which are around 1.20 m in diameter at the base. Their diameter ranges from 5 m to 6 m, and they are built of crude yellow stones. Four cairns on the slopes are built of yellow stones with white creamy soil and diameters of 6 m to 8 m and a height of 1 m to 2.50 m. There are also other similar tombs on a low flat slope (Plate 292).

Finds:

No finds

Al-Khashbah CS.5.12 (0609874/2503250):

Size: ?

Structures:

This is an area with two black and one yellow rocky hills. On one of the black hills (0609874/2503250) are seven cairns which are around 8 m in diameter. They are built with black stones and white creamy soil (Plate 293). On the second black hill (0609956/2502678) are five cairns of the same construction. In addition, on the yellow rocky hill (0610226/2603016) are two cairns of the same construction except that they are built of yellow and black stones with white creamy soil.

Finds:

No finds

Al-Khashbah CS.5.13 (0609294/2503073):

Size: ?

Structures:

Here eleven cairns are located on a black rocky hill. They are built of yellow and black stones with white creamy soil and their diameters are 6 to 8 and their height is 2.50 m (Plates 23 & 108–109).

Finds:

Several of the tombs yielded grave goods as follows:

- Tombs 1 yielded 41 Early Iron Age pottery sherds and two of recent date.
- Tomb 2 yielded two Early Iron Age pottery sherds; six beads (W.D.026 to W.D.031; Plate 110 & Figure 59) in which five are pierced white rounded stone bead with 3 mm to 1 cm diameter and one (W.D.026) pierced red rounded stone bead with 3 mm diameter; and six shells (W.D.094 to W.D.099, Plate 111) in which five are fragments and one complete (W.D.097)
- Tomb 3 yielded 62 Early Iron Age pottery sherds and two shell fragments (W.D.076 and W.D.077).

- Tomb 4 yielded four fragments of chlorite vessel (W.D.112 to W.D.115; Figure 57) in which all are of the same vessel with possible rounded rim and bear incised decoration of horizontal lines just under the rim and opposed triangles as well as incised dots. The vessel's rim thickness is ca. 4 mm with open-rounded mouth. The decoration of this vessel is typical of Early Iron Age type. It also yielded six shells (W.D.059 to W.D.064, Plate 112) in which five are fragments and one complete (W.D.059), and one pierced white rounded stone bead with 9 mm diameter (W.D.012; Plate 106 & Figure 59).

Al-Khashbah CS.5.14 (0608964/2503067):

Size: ?

Structures:

The site consists of 18 cairns. They are located on a black gravel hill, built of yellow and black stones with white creamy soil and with diameters of around 8 m (Plate 294).

Finds:

Two tombs yielded grave goods:

- Tomb 4 yielded four Early Iron Age pottery sherds.
- Tomb 8 yielded three Early Iron Age pottery sherds, and five fragments of shells (W.D.071–W.D.075).

Al-Khashbah CS.5.15 (0608259/2502424):

Size: ?

Structures:

The site includes 36 cairns located on a black rocky hill. They are built of yellow and black stones with a diameter of 6 m to 8 m (Plate 27). The site also includes square or rectangular stone structures that are built of black stones with one course alignment filled with gravel and smaller stones (Plates 28–29). These could possibly be platforms of structures. In addition, a group of piled stones was found close to the structures which have diameters of 80 cm to 1m and heights of 10 cm to 20 cm.

Finds:

The only tomb yielded material is Tomb 4 that yielded ten Late Iron Age pottery sherds.

Al-Khashbah CS.5.16 (0603341/2507996):

Size: ?

Structures:

The site consists of a group of piled stones of different sizes and shapes in which several look like platforms or pre-Islamic tombs (Plate 295). The site also includes stone rectangular and square structures built of one stone course walls with gravel infilling. There is a wall of double stone filled with gravel around 30 cm thick, 1.50 m on the long side and 1 m on the shorter side. It looks like 7 in shape (Plate 296). Moreover, the site yielded three structures, Islamic tombs with possible head-stones and a north–south orientation.

Finds:

No finds

Al-Khashbah CS.5.17 (0603594/2505164):

Size: 0.4.ha.

Structures:

The site consists of around 21 Islamic tombs that are built of one stone course alignment of grey stones with oval shape, and filled with gravel and earth. Their size varies from 80 cm to 1 m wide and from 1 m to 2 m long.

Finds:

No finds

Al-Khashbah CS.5.18 (0603555/2504608):

Size: ?

Structures:

The site only includes one possible subterranean pre-Islamic tomb that is built of brown wadi stones of one course alignment with an average stone size of around 30 cm (Plate 76).

Finds:

No finds

Al-Khashbah CS.5.19 (0604144/2506201):

Size: ?

Structures:

The site includes two yellow rocky hills west of al-Khashbah village separated by the wadi tributary and located around 800 m away from site CS.5.9. It consists of 48 Beehive tombs of yellow stones and 4 m to 6 m in diameter and 1.50 m to 3 m high. As well there are other Hafit cairns on low gravel hills and wadi terraces (Plates 297–299).

Finds:

No finds

A.1.5- BARZAMAN VILLAGE (CS.7):

Size: 731.25 ha.

The survey at Barzaman village included the main village and its surrounding areas. The village includes small date palm groves and is located half-way between Mahout and Sinaw. It is surrounded by a low flat gravel surface on the east, and silt as well as sands on the west. The village has several small date palm groves west of the main asphalted road that connects Sinaw with Mahout (Plate 300). The village consists of a group of *barasti* houses or structures, in particular the western part of the village. This part also includes modern houses and some old mudbrick buildings remains among the date palm groves and their surroundings. The main cemeteries are located east of the main road. Here three cemeteries were found and defined by modern cemented walls, which may indicate that they were used by groups of people or tribes. The surrounding area that was surveyed away from the village is 5 km² from Barzaman toward Mahout (0612892/2460717). The survey within and around this village yielded the following sites (Maps 43):

Barzaman CS.7.1 (0610231/2466397), Figure 94:

Size: 731.25 ha.

Structures:

This is the main village with its date palm groves and houses. It was divided into five areas for pottery collection. In the first one (CS.7.1.1) is the main date palm grove of the village that also includes old mudbrick houses (Plate 301). The second (CS.7.1.2) is the area surrounding the main groves to the south of Barzaman. It consists of old agricultural fields built of piled earth with some small stones, as well as *falaj* channels with circular and rectangular basins (Plate 203). Area three (CS.7.1.3) is located west of the main groves and includes a group of *barasti* houses (Plate 303) or structures with some modern houses, while the fourth area (CS.7.1.4) is located east of the main groves, and includes most of the modern houses. The fifth area (CS.7.1.5) is located east of the village and the main asphalted road, and includes a small date palm grove with *barasti* houses or structures and a few more modern houses.

Finds:

Among the collected pottery sherds from PCAs are five Late Iron Age sherds, 37 Middle Islamic, 710 Late Islamic and 53 Recent. Other finds included only a fragment of shell from CS.7.1.2 (W.D.058).

Barzaman CS.7.2 (0609212/2472677):

Size: 16 ha.

Structures:

The site includes a group of tombs and cairns on black gravel and rocky hills (Plates 24, 77–78). These include forty-three oval tombs with large and medium brown and black stones with gravel and stones in the middle. The tombs are 2 m to 2.50 m wide and 3 m to 4 m long with an average stone size of around 30 cm to 50 cm. One tomb of this type was disturbed and its chamber left open with one covering slab *in situ* (Plate 79). The burial chamber is rectangular in shape like a cist. It with around 1.50 m long, 1 m wide and 50 cm deep with large slab stones on top and surrounded by stone wall (0608695/2472359). In addition, there are around ten piles of small circular black stones around 1 m to 2 m in

diameter with an outer stone wall of one course. The site also includes seventy-six cairns of yellow and black stones, which look like collapsed Beehive tombs. They are around 6 m to 8 m in diameter, and 80 cm to 2 m high. The last type of tomb consists of eighteen black cairns that look like Hafit tombs. They are 6 m to 8 m in diameter and 1 m to 2 m high. Furthermore, the site includes possible stone circular structures attached to each other, and a group of piled stones around 80 cm to 1 m in diameter and 10 cm to 20 cm high (Plates 25–26).

Finds:

Different types of pottery sherds were collected from the surface of the sites in which 12 are Umm an-Nar, seven possible Wadi Suq, eleven Late Iron Age, one Early Islamic, six Late Islamic and 21 Recent.

Barzaman CS.7.3 (0609709/2471784):

Size: ?

Structures:

The site consists of a circle of piled black stones possibly in the form of platforms for structures of huts or wooden houses. There are also possible rectangular stone structures of one stone course alignment around 1 m x 2 m.

Finds:

No finds.

Barzaman CS.7.4 (0609253/2471511):

Size: 2.4 ha.

Structures:

The site is located on a black rocky hill that consists of possibly rectangular structures that are built of brown wadi stones and rough white stones (Plate 304). It also consists of a group of piled black stones of mostly circular shape and around 1 m in diameter. They could be platforms for structures. There are also two possible Islamic small oval tombs around 80 cm long and 40 cm wide with head-stones. Furthermore, the site includes some black and rough white scattered stones. There are also five cairns of brown and white

travertine stones with a circular burial chamber in the middle which is around 1 m in diameter (Plate 305). The diameter of the cairn varies from 4 m to 6 m and around 2 m high. Forty-seven oval tombs with head-stones with a north–south orientation were found in an Islamic cemetery at the north end of the site (Plate 306). The tombs are mainly of two stone courses alignment though sometimes one course. They are filled with gravel and earth. Their width ranges from 80 cm to 1 m with a length variation from 1 m to 2 m. They are built of brown and black as well as grey stones and in the middle there are some travertine stones with gravel. Some cleared circular structures were also found as well as black and rough white stone scatters all over the area. They have no recognisably regular shape but could be the remains of disturbed structures?

Finds:

No finds

Barzaman CS.7.5 (0609067/2471296):

Size: ?

Structures:

The site includes a group of white and brown scattered stones or piled on a gravel terrace.

Finds:

No finds

A.1.6- Ar-RAWDHAH VILLAGE (CS.9):

Size: 1,912.5 ha.

This is ar-Rawdhah village. It has a with high density of date palm groves that are located on Wadi Samad terraces, and surrounded on the east and west by black rocky hills and Wadi Samad's tributaries (Plate 307). Nineteen sites were located within this village and its surrounding area. These can be summarized as the following (Map 44):

Ar-Rawdhah CS.9.1 (0624850/2530847), Figure 95:

Size: 945 ha.

Structures:

Ar-Rawdhah CS.9.1 is a large village with both numerous groves and houses. The village was divided into eight areas for pottery collection. The first area (CS.9.1.1) includes Ar-Rawdhah's restored fort with some old mudbrick buildings and modern houses as well as date palm groves to the east of the fort (Plate 217 & 220). The fort is located on top of a black rocky hill and overlooks the wadi. It is surrounded by old collapsed mudbrick buildings and modern houses. Area two (CS.9.1.2) is located east of the wadi and consists of date palm groves with old fort and mudbrick buildings as well as modern houses. Area three (CS.9.1.3) includes date palm groves intermingled with modern houses and old mudbrick buildings built mostly on a black rocky hill slope. The fourth (CS.9.1.4) and fifth (CS.9.1.5) areas also consist of groves that are surrounded by a few modern houses at the northern and western ends. The sixth area (CS.9.1.6) is north of and opposite ar-Rawdhah Fort. It includes the old fort and several old mudbrick and modern houses. Area seven (CS.9.1.7) includes the date palm groves located to the north of the village, whereas area eight (CS.9.1.8) consists of the date palm groves west of the village together with a few old mudbrick and modern houses.

Finds:

There is a large number of pottery sherds collected from the PCAs in which three are Umm an-Nar, 141 Late Iron Age, 327 Middle Islamic, 1796 Late Islamic and 18 Recent.

Ar-Rawdhah CS.9.2 (0624702/2531197), Figure 95:

Size: 4.37 ha.

Structures:

This site includes two areas: the first one (CS.9.2.1; Plates 71.72) includes old mudbrick building remains on top of a black rocky hill and its slope. The southern slope of the hill yielded a mudbrick remains with a large number of sherds of different periods. This area seems to be a rubbish dump area that has been used over a long period of time in which sherds of different periods were noticed and of which a large collection was made. Perhaps the rubbish dump is composed of the remains of the adjacent mudbrick buildings (Plate 72). The second area (CS.9.2.2) consists of a small date palm grove that was also checked for pottery collection (Plate 73). The sherds on this site were collected from the

earth piled around the edges of the garden. This earth is the result of clearing the garden land over time for the fertile soil as well as digging the ground in order to find water. This earth possibly included the material of possible deposited remains from different periods.

Finds:

Both areas yielded a large number of pottery sherds of different periods as the following:

- CS.9.2.1: among the collected pottery sherds are seven Umm an-Nar sherds, 22 Late Iron Age, one Middle Islamic, 115 Late Islamic and four Recent.
- CS.9.2.2: among the collected pottery sherds are 14 Umm an-Nar, three Wadi Suq, nine Early Iron Age, 22 Late Iron Age, one Middle Islamic, 92 Late Islamic and four Recent.

Ar-Rawdhah CS.9.3 (0625163/2529399), Figure 95:

Size: 56.25 ha.

Structures:

The site consists of five burial cairns near the main road connecting Samad with al-Mudhaybi (Plates 308–309). Two of them are south of the road and behind a mosque (0625097/2529434), two are north of the road (0624938/2529629 & 0624952/2529613), and one is near the modern houses and close to the road (0625071/2529554). The last cairn consists of a one stone course circle alignment of large stones with other brown small stones piled in the middle with white creamy soil. This cairn is around 4 m in diameter. The other cairns are around 8 m in diameter and also mixed with white creamy soil.

Finds:

No finds

Ar-Rawdhah CS.9.4 (0625186/2531584), Figure 95:

Size: 0.03 ha.

Structures:

A section of a well (*thuqbah*) north of the village and around 60 cm thick includes one layer with a few Umm an-Nar pottery sherds. This could be a buried Umm an-Nar deposit. It also included possible evidence of fire cracked stones and possible fragments of mudbrick in the same level, as well as small mud pieces with signs of fire. In addition, a large number of pottery sherds from different periods were found around the section and within its spoil. The well-section is around 3 m wide and around 2.50 m deep (Plates 74–75).

Finds:

Among the collected sherds from the well-section and its spoil are 76 Umm an-Nar, eight Late Iron Age, three Early Islamic, 81 Middle Islamic, 30 Late Islamic and one Recent.

Ar-Rawdhah CS.9.5 (0625631/2532976), Figure 95:

Size: 56.25 ha.

Structures:

The site includes a date palm grove with a modern house, and an old fortified wall (*Sur*) that includes one corner tower of mudbrick and stones to around 8 m in height and around 4 m in diameter at the base (Plate 211–212). The wall surrounds a group of possibly five collapsed buildings. The wall is around 60 m by 100 m. To the north of the tower is an old collapsed mosque around 10 m by 8 m. South of the wall there is also an old building. A mosque with *Mihrab* was also found (Plate 310). The site also includes a large area of old agricultural fields (Plate 311), a rectangular tank around 8 m x 4 m (Plate 312), a group of old dried wells (*Thuqab*), some clearance mounds (Plate 313) around the fields as well as some mudbrick buildings of square and rectangular shape within the fields which could have been used for irrigation or agricultural purposes.

Finds:

Among the collected pottery sherds from this site are three Umm an-Nar sherds, eleven Early Iron Age, 70 Late Iron Age, eight Middle Islamic, Late Islamic 257 Late Islamic and ten Recent.

Ar-Rawdhah CS.9.6 (0625393/2532163), Figure 95:

Size: 5.64 ha.

Structures:

The site includes an area of old agricultural fields with stone walls remains around 30 cm to 50 cm thick, some piled stones of circular shape with white creamy soil around 1 m to 1.50 m in diameter, as well as a group of dried wells (*thuqab*) (Plate 314).

Finds:

The site yielded a large number of pottery sherds in which a collection was made, including 252 Middle Islamic, 226 Late Islamic and five of Recent time.

Ar-Rawdhah CS.9.7 (0623374/2531015), Figure 95:

Size: 0.9 ha.

Structures:

This site includes one circular, possibly pre-Islamic, tomb with traces of two stone walls. It is built of large brown and black stones with an average size of around 45 cm. It is around 6 m in diameter with gravel in the middle and built on a slope between two yellow rocky hills. The site also yielded a group of piled stones around 80 cm in diameter and 20 cm high.

Finds:

No finds

Ar-Rawdhah CS.9.8 (0623184/2530856), Figure 95:

Size: 0.72 ha.

Structures:

This is a gravel surface with four possibly pre-Islamic tombs of piled brown and white travertine stones (Plates 80–81). The tombs are around 6 m to 8 m in diameter. There are also more plies of stones and 15 other Islamic tombs. These Islamic tombs are oval in shape and built of piled earth and gravel with head-stones of north–south orientation, around 80 cm wide and from 1 m to 1.50 m long.

Finds:

Among the collected pottery sherds from this site are ten sherds of Wadi Suq type, 92 Late Islamic and two of Recent time.

Ar-Rawdhah CS.9.9 (0622974/2529587), Figure 95:

Size: 0.045 ha.

Structures:

This is an area of wadi terrace that includes clearance mounds and mud layers or mounds of destroyed buildings. One mud-building has survived. All were built on a black rocky hill slope and are around 4 m x 3 m in size.

Finds:

No finds

Ar-Rawdhah CS.9.10 (0622905/2529266), Figure 95:

Size: 45 ha.

Structures:

The site is located on a wadi terrace and surrounded by a black rocky hill from the west. The site includes the ruins of stone-mudbrick buildings. Only mud layers remain on the ground (Plates 186-187). The stone walls of these structures are around 30 cm thick and built of grey and brown wadi stones. Some walls are built of stone and plastered with mud or mortar. The site also includes an Islamic cemetery west of the site on a low slope of black rocky hill. Here, 163 oval-shaped tombs were identified, and another cemetery with 29 oval tombs. To the south, there are old agricultural fields that extend over a large area and include other stone and mudbrick buildings remains, a mosque (Plate 188) as well as possible *falaj* channel remains (Plate 189).

Finds:

A large collection of pottery sherds was made from the site surface in which 86 are Middle Islamic, 266 Late Islamic and three of Recent time.

Ar-Rawdhah CS.9.11 (0622487/2529448):

Size: ?

Structures:

This site is an Islamic cemetery with 33 oval tombs with one stone course alignment filled with earth and gravel. Their sizes vary between 80 cm and 1 m wide and from 1 m to 2 m long. The site also includes a group of piled stones of gravel and earth around 1.20 m in diameter.

Finds:

No finds

Ar-Rawdhah CS.9.12 (0622152/2528993):

Size: 1 ha.

Structures:

The site includes a small cave or rock shelter (Plate 315) with stone wall remains that are built using natural bed rock with other stones piled on top. Together they form a wall (0622152/2528993). The shelter is around 1.30 m wide and 2 m high in what looks like the shape of an arch. There is also a stone wall built of large brown and grey stones with an average size of around 60 cm (Plate 316). The wall is built on a low black rocky slope and is around 60 cm to 80 cm thick with gravel and mud in the middle. It extends along and is parallel with the slope of the black rocky hill. This wall has other wall divisions shaped like squares or rectangles. In the middle of this stone wall there are layers of mud from possibly collapsed mudbrick buildings (Plate 317). A similar stone wall extends parallel with another black rocky slope. This could be part of the previous wall but intermediate sections are missing, possibly destroyed.

Finds:

No finds

Ar-Rawdhah CS.9.13 (0625435/2528921):

Size: ?

Structures

This consists of one possibly pre-Islamic tomb. It is built of brown stones with white creamy soil and is around 4 m in diameter. It is hardly distinguishable.

Finds:

No finds

Ar-Rawdhah CS.9.14 (0625402/2530822):

Size: 3 ha.

Structures

The site is an Islamic cemetery located east of the village. On one side of the road there are 147 oval tombs with 10 more on the other side. The tombs are built of one stone course alignment and filled with gravel and earth. They are around 80 cm to 1 m wide and 1 m to 2 m long with one or two head-stones.

Finds:

No finds

A.2- UPPER WADI ANDAM (UWA), CS.2:

As has been indicated in Chapter Four, Section One (4.1.2.1.5.3.2.2), a survey was carried out along the area from the junction of Wadi Andam on the main road connecting Muscat with Sur, to the junction near Khadra Bani Dafa'a on the main road connecting Izki with Sinaw. In other words, the survey includes the area that covers the Upper Wadi Andam. It is approximately 40 km long and 2 km wide (c. 7.800 ha.) along the wadi edges taking in hills as well as gravel terraces. This survey area was given the code (CS.2). Sixty-nine sites were recorded in this area that also includes other sub-defined sites of different features ranging from stone structures, tombs, villages to towers and other structures. From these locations, four Umm an-Nar sites were recorded. These included stone structures of different sizes and shapes, tombs and towers, as well as a high concentration of Umm an-Nar pottery sherds. Each site within this area was given the area number (CS.2), followed by its own number (e.g. CS.2.1); and each site or feature within that site was also given a separate number (e.g. CS.2.1.2). They were also given the name of the

closest well-known village in order to establish recognizable names instead of using a numbering system only. The area from al-Alya village to Khadra Bani Dafa'a almost 17 km long by 1 km wide was surveyed by on foot as it had showed large archaeological potentials; therefore, it was decided to survey the whole area on foot. The area from al-Alya to al-Jarda where the junction meets the main road connecting Muscat with Sur was surveyed by driving and stopping to check for possible sites.

The following is a description of each of these sites and its archaeological features (Map 45):

Rubkah CS.2.1 (0614917/2544193):

Size: 0.25 ha.

Structures

The site is a tomb field of circular stone structures of possibly pre-Islamic tombs, possibly Mahleya type (Plates 318–320). They are built of brownish-black wadi stones. Around 34 pre-Islamic tombs and seven Islamic tombs were counted, with one possible Hafit cairn with a diameter around 6 m and three possible concentric walls. Four circular tombs are surrounded by two rectangular stone structures, each rectangular includes two tombs. The site also includes four black Hafit cairns on top of a black rocky hill east of the tomb field.

Finds:

Among the collected pottery sherds from the surface of this tomb field are nine Umm an-Nar, one possible Wadi Suq and 22 Late Iron Age sherds.

Siyudian CS.2.2 (0622510/254692):

Size: ?

Structures

The site includes eight cairns on top of black rocky hills that are surrounded by date palm groves and an area of pottery sherds and slag scatter.

Finds:

The area that showed pottery sherds and slag scatter yielded around five Early Iron Age and five Islamic pottery sherds.

Siyudian CS.2.3 (0621694/2547499):

Size: 1.4875 ha.

Structures

The site consists of a group of scattered stones of irregular shape, and one possible circular tomb around 3.50 m in diameter. It also includes a well with a 1.50 m x 1.50 m square basin attached to an irrigation channel built of small dark black stones. The channel is around 55 cm wide and attached to other sub-division walls which could be the remains of other channels. The area is covered with a large number of pottery sherds.

Finds:

Among the collected pottery sherds from this site are 21 Late Iron Age, one Middle Islamic, 38 Late Islamic, six Recent and 25 other possible Islamic sherds.

Siyudian CS.2.4 (0621621/2547958):

Size: c. 5 m diameter

Structures

The site consists of only one isolated cairn with brownish-black stones and white creamy soil with a gravel and mud filling in the middle (Plate 82). It has four concentric walls and is built on a wadi gravel terrace. This tomb is located around 1 km from the main road.

Finds:

The tomb yielded a group of objects such as one spindle whorl (W.D.123; Plate 83 & Figure 58), fragment of chlorite vessel (W.D.124, Plate 83), three beads (W.D.015, W.D.147 & W.D.148, Plate 84 & Figure 59), a copper sheet (W.D.128). Iron pin (W.D.146; Plate 85 & Figure 58) and three fragmented shells (W.D.125, W.D.126 & W.D.127, Plate 86). In addition, a total of 12 Wadi Suq sherds were collected from the surface of this cairn.

Siyudian CS.2.5 (0621477/0548464):

Size: 0.04 ha.

Structures

The site includes five cairns on two low black rocky hills in the middle of the wadi.

Finds:

No finds

Siyudian CS.2.6 (0621135/2548572):

Size: 1.5 ha.

Structures

It includes small plies of brownish-black stones that are scattered over a large area (**Plate 321**). The diameters of the plies range from 40 cm to 80 cm and their height from 10 cm to 25 cm.

Finds:

Around 18 Late Islamic pottery sherds were collected from this site.

Siyudian CS.2.7 (0620705/2549323):

Size: 0.02 ha.

Structures

This is a deep section that was cut right down to the bedrock. It is around 8 m long and 5 m wide (Plate 322).

Finds:

No finds

Khuwisi CS.2.8 (0608870/2537534), Figure 96:

Size: 5.29 ha.

Structures

This site includes four cairns built of brown and black stones with white creamy soil. Their diameter varies from 6 m to 8 m. Each cairn consists of two to four concentric walls

(Plate 13). They are built on a black gravel wadi terrace. The site also includes a possible circular animal trap built of brown stones around 60 cm in diameter and with a small opening around 20 cm wide facing the south. In addition, there are stone plies of mainly circular shape around 60 cm to 1 m in diameter, and 15 cm to 25 cm high. They are distributed over a large area.

Finds:

No finds

Khuwisi CS.2.9 (0608249/2538456):

Size: 0.48 ha.

Structures

The site consists of a group of piled stone of possibly pre-Islamic tombs of the Mahleya type? They are either circular or oval in shape and around 80 cm to 1.20 m in diameter for the circular and around 80 cm to 1.20 long and 60 cm to 80 cm wide for the oval. They are built of brown and black stones and include one stone ring, which is part of the stones piled in the middle.

Finds:

No finds

Khuwisi CS.2.10 (0608789/2539427):

Size: 1m diameter

Structures

Here is a possibly pre-Islamic tomb of plied stones, circular in shape. It is 1 m in diameter and 30 cm high. The stones are brown and black on a black gravel wadi terrace (Plate 323).

Finds:

No finds

Khuwisi CS.2.11, Figure 54:

Size: 0.5225 ha.

Structures

This site includes several stone structures of different shapes that are built with double stone walls around 30 cm thick and filled with gravel and earth (Plates 87–89). They are built on a black gravel wadi terrace directly on the edge of the wadi's western bank.

Finds:

The surface of this site yielded a number of pottery sherds in which five are Wadi Suq sherds, 25 are Early Iron Age and 70 are Late Iron Age.

Khuwisi CS.2.12 (0609328/2539495):

Size: ?

Structures

The site includes eight possibly pre-Islamic tombs of Mahleya type. They look like piled stones with a one course circular alignment. As well there are small stones piled in the middle. The tombs are around 4 m in diameter. The site also consists of a rectangular structure with one-course stone wall. The structure is around 6 m x 4 m (0609308/2539501).

Finds:

No finds

Khuwisi CS.2.13 (0609361/2539968):

Size: ?

Structures:

It includes one possible stone structure of semi-circular shape. It is hardly distinguishable and is built with a double stone wall filled with gravel and earth to a thickness of around 30 cm. The site also contains a group of piled stones, possibly pre-Islamic tombs, around 1.50 m in diameter. They are built of brown and black stones.

Finds:

No finds

Khuwisi CS.2.14 (0609288/2540112), Figure 97:

Size: 0.625 ha.

Structures:

The site is an Islamic cemetery of 29 tombs built with and without stone tomb-heads. They all have the same north-south orientation (Plates 324–325). They are oval in shape and built of one brown and black stone course alignment with an average size of around 20 cm to 30 cm. The tombs are for adults and infants and range from 40 cm to 1.20 m in width and from 80 cm to 2.50 m in length. They are built on a black gravel wadi terrace and filled with gravel and earth. In addition, the site also includes one large cleared circular stone structure of one course stone alignment around 12 m in diameter (Plate 326). It is possible that this structure was built as an animal pen or enclosure. There are, moreover, four circular possibly pre-Islamic tombs of the Mahleya type. They are around 1.50 m to 2 m in diameter.

Finds:

No finds

Khuwisi CS.2.15 (0609362/2540365), Figure 98:

Size: 13.14 ha.

Structures:

The site yielded a group of different structures such as animal pens or enclosures that are built of one course stone alignment around 14 m in diameter (Plate 327). It also includes a group of piled stones of different shapes and sizes in which some are possibly pre-Islamic tombs of the Mahleya type. There are around ten tombs built of brown and black stones with a one course alignment around 80 cm to 1.20 m in diameter. There are also stone wall remains of possibly square structures around 50 cm thick filled with gravel. They are around 5 m x 5 m. In addition, the site yielded three cairns around 6 m in diameter and 1.50 to 2 m high in their best preserved parts (Plates 12 & 328). They have a pit in the middle around 1.20 m in diameter and a wall around 80 cm thick with stones piled around them. Lastly, there are 23 oval shaped Islamic tombs around 80 cm to 2.50 m long, 80 cm to 2 m wide with gravel in the middle.

Finds:

No finds

Jebel Qard CS.2.16 (0609849/2540497):

Size: 0.715 ha.

Structures:

The site includes two cairns (possible observation towers?) on top of a black rocky hill. They look like collapsed Beehive tombs. They are around 1.20 m high in their best preserved parts and around 4 m to 6 m in diameter. They are built of yellowish-brown crude stones. On the wadi edge, the site also yielded a piled stone structure around 80 cm in diameter and 15 cm high with earthen and stone partitions or mounds and around a 2 m maximum height.

Finds:

No finds

Jebel Qard CS.2.17 (0610274/2540850), Figure 99:

Size: 8.8 ha.

Structures:

The site consists of a group of circular and square structures around 3 m–4 m in diameter for the circular ones and around 2 m by 2 m for the square one. They are built of one stone course alignment around 30 cm thick using brown and black stones. The average size of these stones is 25 cm. The site also includes eight cairns around 1.50 m high in their best preserved parts and around 4 m to 6 m in diameter. There is also a pit in the middle around 1.20 m in diameter. The cairns are built of brown and black stones on a black gravel wadi terrace. In addition, there are some piled stones of different shapes and sizes scattered over much of the area. They are around 40 cm to 80 cm in diameter and 10 cm to 20 cm high.

Finds:

No finds

Jebel Qard CS.2.18 (0610637/2541102), Figure 100:

Size: 4.41 ha.

Structures:

The site yielded a group of piled stones around 80 cm to 1 m in diameter and 10 cm to 20 cm high. As well there are nine possibly pre-Islamic tombs of the Mahleya type on a black gravel wadi terrace. They are around 3 m to 4 m in diameter and built of brown and black stone of an average size of around 35 cm.

Finds:

No finds

Jebel Qard CS.2.19 (0611123/2541968):

Size: 0.81 ha.

Structures:

The site consists of a group of piled stones around 60 cm to 80 cm in diameter and around 10 cm to 20 cm high, as well as two stone circular structures around 3.50 m in diameter and with a one course stone alignment.

Finds:

No finds

Jebel Qard CS.2.20:

Size: 1.0075 ha.

Structures:

This is a major Late Iron Age site that consists of a group of circular, rectangular and square stone structures of different sizes (Plates 150–151). They are built of large and medium, brown and black wadi stones. The maximum dimension of these stones is around 35 cm. Some of these are isolated and others are attached as units with other structures within them. The stone walls are around 60 cm thick with gravel and earth in the middle. The structures, cleared from inside, have black gravel remains. They are built directly on

the wadi's black gravel terrace. The structures have entrances, mainly facing the east with a width between 45 cm and 50 cm.

Finds:

The site yielded a large number of pottery sherds, including 30 Umm an-Nar sherds and 408 Late Iron Age sherds.

Jebel Qard CS.2.21 (0612629/2542542):

Size: ?

Structures:

The site consists of one small circular structure of one course stone alignment around 50 cm in diameter. It is built of brown and black wadi stones on a black gravel wadi terrace. It also yielded a group of piled stones around 30 cm to 60 cm in diameter and around 10 cm to 15 cm high.

Finds:

No finds

Jebel Qard CS.2.22 (0613505/2543712):

Size: 5 m diameter

Structures:

This site includes one isolated stone tower built on a black gravel wadi terrace, adjacent to the main asphalt road. The tower is built of one double-skin stone wall around 50 cm filled with gravel and white creamy soil (Plate 329). The tower is around 5 m in diameter. Jebel Qard also yielded signs of circular stone structures around 80 cm to 1 m in diameter, but they are hardly distinguishable.

Finds:

No finds

Jebel Qard CS.2.23 (0613667/2543734):

Size: 0.34 ha.

Structures:

Here are six stone circular structures with double-skin walls of brown and black stones filled with gravel and white creamy soil. They are around 50 cm thick (Plates 154–155). The structures are around 5 to 6 m in diameter and built directly on the wadi's black gravel terrace.

Finds:

The site's surface is covered with Late Iron Age pottery sherds, in which 50 sherds were collected.

Rubkah CS.2.24 (0617249/2545719), Figure 101:

Size: 0.48 ha.

Structures:

The site includes one cairn of brown and grey stones and white creamy soil. It is around 8 m in diameter (Plate 330). It also has 6 possibly concentric walls and stands around 1.5 m high. Furthermore, it consists of one square stone structure built into the ground where its stone walls are sunk to around 80 cm below the surface (Plate 331). The structure is around 3.5 m x 3.5 m, and has a two step entrance in the southern wall which is around 50 cm wide. Finally, the site yielded old agricultural fields composed of gravel and small brown and black stone walls with piled earth.

Finds:

Among the collected pottery sherds from this site are 36 Middle Islamic, 29 Late Islamic and 19 of Recent time.

Khuwisi CS.2.25 (0607837/2538950), Figure 102:

Size: 15.08 ha.

Structures:

The site consists of a group of stone wall remains found on a low black gravel hill. They are built of one course stone alignment with large brown and black stones. The maximum dimension of these stones is around 35 cm. They have different sizes and shapes, such as rectangular, circular and square, with cleared areas in the middle. The site also yielded one

horseshoe structure with stone wall around 30 cm thick built of piled stones (Plate 332). The structure is around 70 cm wide with an opening in the west. It is built of brown and black stones on a black gravel wadi terrace. There are also a group of piled stones down the hill which are around 80 cm in diameter.

Finds:

No finds

Jebel Qard CS.2.26 (0608226/2541547), Figure 103:

Size: 3.75 ha.

Structures:

The site yielded only a group of piled stones of brown and black stones around 80 cm to 1.20 m in diameter.

Finds:

No finds

Jebel Qard CS.2.27 (0610943/2543137), Figure 104:

Size: 2.5 ha.

Structures:

The site consists of a group of stone horseshoe or circular structures around 1.20 m in diameter with one course stone alignment. As well there is evidence of possible stone wall structures but they are hardly distinguishable. There is also a piled stone structure that looks like a rectangular in shape around 1.20 m x 80 cm. It stands to a height of around 3 stone courses all of which form a total height of around 50 cm. It has small opening from the north. This structure is difficult to interpret but it might be an animal trap. The site also yielded four oval shaped possibly pre-Islamic tombs around 1 m x 1.50 m with one stone alignment, and stones as well as gravel in the middle. These tombs recall the Mahleya type of the Late Iron Age.

Finds:

No finds

Jebel Qard CS.2.28 (0610545/2543908), Figure 105:

Size: 1.875 ha

Structures:

Here are six stone piles of oval shape and of different sizes ranging from 1 m to 1.5 m wide and 1 m to 2 m long (Plate 333). They are possibly pre-Islamic tombs with an east–west orientation. They look like small cairns on a black gravel wadi terrace. In addition, there are also two rectangular, 12 oval and three circular stone structures (Plate 334).

Finds:

No finds

Jebel Qard CS.2.29 (0613200/0613200), Figure 68:

Size: 0.66 ha.

Structures:

The site consists of four rectangular stone structures of one double stone wall around 40 cm thick with gravel in the middle (Plate 152–153). They have different sizes: 8 m by 4 m, 2 m by 5 m and 4 m by 3 m. They consist of piled stones around 80 cm to 1 m in diameter, and built of brown and black stones. Moreover, there are two circular stone structures around 2 m in diameter that are built on a black gravel wadi terrace.

Finds:

The surface of the site yielded a large number of Late Iron Age pottery sherds in which 224 were collected.

Jebel Qard CS.2.30 (0613461/2543915):

Size: 0.0875 ha.

Structures:

The site includes three stone plies around 1 m in diameter and 15 cm high. They are built of brown and black stones on a black gravel wadi terrace.

Finds:

No finds

Rubkah CS.2.31 (0616000/2544491):

Size: 0.28 ha.

Structures:

The site includes a group of piled stones around 80 cm to 1 m in diameter and built of brown and black stones on a black gravel wadi terrace slope.

Finds:

No finds

Rubkah CS.2.32 (0616203/2545019), Figure 106:

Size: 4.4 ha.

Structures:

The site is an Islamic cemetery of 33 tombs built on a black gravel wadi terrace. They have a one stone course alignment, oval in shape and filled with gravel. They are around 80 cm to 1.20 m wide and 1 m to 2 m long. In addition, the site includes old agricultural fields built directly on the wadi's terrace edge. Their walls, around 80 cm thick, are built of earth with stones.

Finds:

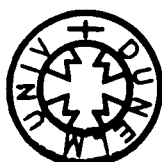
No finds

Rubkah CS.2.33 (0617280/2545463):

Size: ?

Structures:

The site is located on a black rocky hill where two cairns were constructed. They are around 4 m in diameter, and built of brown and black stones with an average size of around 35 cm.



Finds:

No finds

Rubkah CS.2.34 (0618056/2546256), Figure 107:

Size: 0.6 ha.

Structures:

The site contains a small round tower built of brown stones on a high black rocky hill with a diameter of around 3 m and a one course stone wall around 23 cm thick (Plate 335). This tower stands around 1.50 m high at its well preserved part. It is surrounded by a one course brown stone wall, around 30 cm thick, about 2 m high and built on the edge of a black rocky hill (Plate 336).

Finds:

No finds

Al-'Alya CS.2.35 (0608518/2535981):

Size: 1.12 ha.

Structures:

The site includes old agricultural fields to the north of al-Alaya village. They are built of double stone walls around 60 cm to 80 cm filled with earth and gravel. It also yielded one 2.50 m by 2.50 m collapsed mud building and plastered by cement (latter addition?).

Finds:

No finds

Al-'Alya CS.2.36 (0608297/2535958):

Size: 0.605 ha.

Structures:

The site is an Islamic cemetery north of but close to the al-Alya village. The tombs are oval with one course stone alignment filled with gravel and earth. They have stone-heads. Tomb sizes range from 80 cm to 1.20 m wide and from 1 m to 2.20 m long.

Finds:

No finds

Al-Hubat CS.2.37 (0607366/2534309):

Size: 1.25 ha.

Structures:

The site is an Islamic cemetery on both sides of the main asphalt road near al-Hubat village. The tombs have the same characteristics as those found at site CS.2.36.

Finds:

No finds

Al-Hubat CS.2.38 (0606753/2533796):

Size: 2.04 ha.

Structures:

The site is located south of al-Hubat village and consists of a group of stone structures built of brown and grey stones on a sloping wadi terrace. The structures have different sizes and shapes such as square, rectangular and circular. There are also some stone wall remains of other possible structures. They overlook the wadi from its northern bank and are badly preserved. Walls thickness is around 50 cm to 80 cm, and some are filled with gravel. One rectangular structure has piled stones in the middle with charcoal remains. There is also an Islamic cemetery containing 48 tombs with tomb stone-heads of yellow slabs. These are oval in shape and around 80 cm to 1 m wide and 1 m to 2.20 m long.

Finds:

No finds

Mahleya CS.2.39: (0605170/2531890)

Size: ?

Structures:

The site includes a group of stone piles with clearance mounds situated in the south-eastern part of Mahleya village.

Finds:

No finds

Mahleya CS.2.40 (0605182/2532140):

Size: 0.24 ha.

Structures:

The site consists of a group of yellow stone structures built on top of a yellow rocky hill to the south-east of Mahleya village and on the east bank of Wadi Andam (Plates 337–338). The stone structures are different in size and shape: there are square and rectangular structures that also have other structures within them which form separate units. The wall thickness is around 80 cm, and they are built only from yellow stones piled on each other. There is also a yellow stone wall which extends along the edge of the yellow rocky hill and turns around the structures to form a defensive wall. These structures could be part of a fortified site with possible entrance from the north-east. Local people have reported that this site was inhabited by the Furs (Persian). They call it ‘Qaryat al-Furs’ (the Persian Village).

Finds:

No finds

Mahleya CS.2.41 (0605195/2531944):

Size: 11.84 ha.

Structures:

The site is located south-east of Mahleya village. It is on top of yellow rocky hills that include different types of structures and tombs. There are different features to be found here such as two cairns of piled black stones. The cairns are around 2 m –4 m in diameter and 80 cm high (Plate 339). In addition, there is a group of circular piled stones around 30 cm to 1 m in diameter and 10 cm to 40 cm high. Stone size varies from 10 cm to 40 cm.

The site also yielded a group of circular stone structures around 60 cm to 2 m in diameter and with a circular stone course alignment with, sometimes, gravel in the middle (Plate 340). Among the other structures found at the site are a group of one stone course alignments of different sizes, which could have been made by people or goats move using the same route and moving the stones to the side of the path (Plate 341). There are also horseshoe stone structures, piled stones of possibly pre-Islamic tombs, three possible animal traps or structures, and one semi-rectangular structure with rounded corners (Plate 342).

Finds:

The site's surface yielded a group of pottery sherds where a collection was made. Among these collected sherds are 30 Umm an-Nar sherds, 37 Late Iron Age, 13 Middle Islamic, 26 Late Islamic as well as other sherds of possible Middle to Late Islamic and Recent times.

Mahleya CS.2.42 (0605075/2531788):

Size: 7.92 ha.

Structures:

This is an area located on rocky hills and their slopes, and it consists of a group of Beehive tombs, collapsed Beehive tombs, Beehive tombs with attached burial chambers, cairns with white creamy soil, Hafit cairns and Hafit cairns with attached burials. The majority of them include Beehive or collapsed Beehive tombs, but they are associated with other Hafit cairns. A large number of these tombs are attached to other burials, which might be later additions. All in all, 35 tombs were counted.

The Beehive tombs are built of two double-skin stone walls around 80 cm to 1 m thick. They are built of crude rough yellow and grey stones with an average size of around 30 cm. The construction looks like a Beehive with corbelled walls and a wide base. They consist of normally east-facing entrance around 30 cm to 50 cm wide and 30 cm to 60 cm high with a roof or lintel above (Plate 35). In some examples, the entrance was sealed by the outer wall. The burial chamber is round 1.2 m to 1.5 m in diameter at its base which becomes narrower as it rises, which may explain the corbelling of the walls (Plate 34). The

Beehive tombs are built on the top, upper and lower slopes of yellow rocky hills. The average height is around 3 m, but there are some examples that are lower. Diameters range from 3 m to 6 m.

The height of the collapsed Beehive tombs varies between 80 cm and 2 m with a diameter of around 3 m to 6 m. However, as a result of the severe disturbance in some tombs, it is very difficult to say anything about their size or even their shape. Some of the collapsed Beehive tombs have a wide centre or chamber around 2 m in diameter, and it is difficult sometimes to say anything about the construction of their walls, diameters, and the burial chambers. Sometimes these collapsed Beehives look like Hafit cairns and it is difficult to distinguish between them. Some of the Beehive or the collapsed Beehive tombs have other attached burials that resemble honeycomb. These honeycombs might be later additions, and they vary in size and number. Some tombs include more than 30 attached burials. These are difficult sometimes to identify as most of them are disturbed and/or mixed together, which also makes their quantification difficult. Their diameter varies from 80 cm to 1.50 m, and in some examples there are roof stones of yellow limestone slabs.

The Hafit cairns look like piled stones around 3 m to 8 m in diameter and from 30 cm to over one meter high (Plate 14). They are built of brown, black, grey and sometimes yellowish stones. In some examples, there is white creamy soil. They also consist of different types, such as the Hafit honeycomb, where there is one central cairn surrounded or attached to other burials of different sizes and numbers. They range from two to 30 burials sometimes. They are normally built on top of black rocky hills and their upper slopes as well as their lower slopes. They can also be found on the black gravel wadi terraces. From the Hafit cairns with white creamy soil and honeycomb, in particular the disturbed ones, came material such as pottery, softstone vessels, beads, arrowheads, pins, earrings, spindle rolls, pendants and other objects. These cairns sometimes show white stones of either magnesium carbonate ($MgCO_3$), or travertine.

This area also yielded a group of possibly collapsed tombs or structures that look like honeycomb in structure (Plate 343). It was very difficult, as a result of their bad state of preservation, to count or even to identify them either as tombs or any other structure. In addition, there are groups of stone structures such as piled stones of possibly pre-Islamic

tombs, two stone course alignments of possibly horseshoe structures, one course stone alignments around 30 m long as well as one possible observation tower.

Finds:

Among the collected pottery sherds from this sits are eleven Early Iron Age sherds from Tomb 11 (ten sherds) and Tomb 29 (one sherd). In addition, there are 17 Late Iron Age sherds collected from Tomb 10 (16 sherds) and Tomb 29 (one sherd).

Al-Ghoryeen CS.2.43 (0604529/2531507), Figure 67:

Size: 16.5 ha.

Structures:

The site is located on the east bank of Wadi Andam, directly opposite al-Ghoryeen village. The site is surrounded by yellow rocky hills on the east and north-east. It includes old agricultural fields, stone structures, pre-Islamic and Islamic tombs, stone wall remains, piled stones, date palm grove and other structures (Plates 140–142). The site was divided into three areas. Area one CS.2.43.1 consists of 27 Islamic tombs with one-course stone alignment of oval shape with grey and brown stones. The tomb sizes range from 1 m to 2 m long and 80 cm to 1 m wide and are filled with gravel. The site also includes a group of stone structures of different shapes such as squares, rectangles and circles with stone walls around 60 cm to 80 cm thick filled with gravel. This site also yielded stone wall remains or alignments of possible structures but with no specific shape, as well as a group of piled and sometimes paved stones of possibly circular pre-Islamic tombs around 2 m to 4.5 m in diameter and 20 cm to 35 cm high. All those previously mentioned features are located within old agricultural fields with stone wall of around 80 cm thick. Area CS.2.43.2 is a tomb filed with possibly yellow Umm an-Nar tombs around 5 m to 6 m in diameter with two to four concentric walls of grey and yellow stones with possible sub-division walls in the middle (Plates 143–144). Area CS.2.43.3 includes a group of possibly circular pre-Islamic tombs around 2 m to 6 m in diameter with maybe one or two concentric walls around 30 cm wide (Plates 146–146). It also includes a group of piled stones of different types and sizes as well as stone circular, rectangular and square structures of one-course stone alignments (Plates 145 & 148–149).

Finds:

Among the collected pottery sherds from the site, Area one yielded 14 Late Iron Age, four Middle Islamic and ten Late Islamic, while area two yielded two Umm an-Nar, three Early Iron Age, 49 Late Iron Age, one Early Islamic, two Middle Islamic and three Late Islamic. In addition, Area three yielded 21 Middle Islamic pottery sherds, 15 Late Islamic and one Recent. Moreover, the surface of tomb field (CS.2.43.2) yielded one fragment of shell (W.D.016).

Al-Ghoryeen CS.2.44 (0604283/2530948):

Size: 0.7475 ha.

Structures:

The site includes a group of square and rectangular stone structures with walls around 80 cm thick and a maximum height of around 50 cm (Plate 344). They are of different sizes and built of black and brown stones, part of which have been removed by the local people who used them to build stone walls in their date palm groves. There are also around three stone plies around 35 cm to 80 cm in diameter and 30 cm high. There are also six possible platforms, four of which are circular and around 1 m to 2 m in diameter, and two are oval with one-course stone alignment around 2.5 m long and 1.5 m wide.

Finds:

No finds

Al-Ghoryeen CS.2.45 (0604419/2530838):

Size: 0.55 ha.

Structures:

The site is a possible tomb field that includes around 20 possible oval pre-Islamic tombs of scattered stones without any specific or clear orientation and no visible walls. They are built of grey stones with small ones in the middle around 15 cm on average. The tombs are around 1 m to 1.5 m in diameter.

Finds:

No finds

Al-Ghoryeen CS.2.46 (0604489/2530745):

Size: 1.215 ha.

Structures:

The site includes 17 possible pre-Islamic tombs like those found at site CS.2.45. There are also three possible platforms.

Finds:

No finds

Al-Ghoryeen CS.2.47 (0604620/2530752):

Size: ?

Structures:

The site consists of five possibly pre-Islamic tombs around 1 m to 3 m long and 2 m wide with possibly a one-course stone alignment, and small selected stones placed in the middle. It also includes one Hafit or collapsed Beehive tomb with two double-skin stone walls each of which is around 1 m thick (Plates 15–16). The Hafit's entrance faces east and has a one slab roof around 50 cm wide and 1 m long. It is built of crude grey and yellow stones around 8 m in diameter. It is possibly attached on its southern side with another small collapsed Beehive tomb around 4 m in diameter.

Finds:

No finds

Al-Ghoryeen CS.2.48 (0604614/2530803):

Size: ?

Structures:

The site yielded 13 oval possibly pre-Islamic tombs facing east–west. They are built of large grey and brown wadi stones of an average size of 30 cm. They have a one-course stone alignment around 2.5 m long and 1.5 m wide. They are scattered all over the site.

The site also includes two stone circular structures around 2 m in diameter with wall thicknesses of around 30 cm.

Finds:

Only five pottery sherds were collected from the surface in which one is of Iron Age and four are Late Islamic.

Al-Ghoryeen CS.2.49 (0604570/2530861):

Size: ?

Structures:

This site consists of three stone structures of irregular shape. One was possibly a chicken house. It is like a small box with an opening around 15 cm wide and 20 cm high with small yellow slab on the roof opening (Plate 345). The wall is around 40 cm thick with gravel in the middle. The site also yielded two stone plies around 1 m in diameter at the base.

Finds:

No finds

Mahleya CS.2.50 (0604811/2532027 & 0605047/2533797), Figures 61–62:

Size: 94 ha.

Structures:

This is the area between the east bank of Wadi Mahram and the west bank of Wadi Andam. It is surrounded by the current Mahleya village. The area includes a large number of tombs, both Islamic and pre-Islamic, on a black gravel wadi terrace. The majority of them are pre-Islamic of the Late Iron Age Mahleya type, and of different sizes. The site was divided into five areas:

CS.2.50.1 (0604852/2533112): This is a cemetery with Iron Age tombs of the Mahleya type. They have an oval shape with a one-course stone alignment and some piled stones on the top with gravel (Plates 119–121; Figure 63). Their size ranges from 1 m to 2.5 m long and from 1 m to 1.8 m wide. There are over 500 tombs. In January 2004, a joint team from

the Department of Archaeology at Sultan Qaboos University and the Ministry of Heritage and Culture carried out a rescue excavation for seventy-four tombs in the northern part of this cemetery before the main road was constructed (cf. ElMahi & AlJahwari 2005). All the objects, mainly pottery jars and vessels (Figures 64–65), found within these tombs as well as the burial practices point to a date between 400 and 100 BC. These tombs were removed to build the road, which divides the cemetery into two parts: the southern part in which there are several stone structures and sixty seven tombs only; and the northern part which includes the rest of the tombs and few more structures. The cemetery also includes a stone rectangular structure, possibly a mosque, a large oval structure which is possibly a pre-Islamic tomb, a cleared circular stone structure and a horseshoe stone structure.

CS.2.50.2 (0604788/2532777): This is the area located on the east bank of Wadi Mahram. It includes a group of stone constructions of different sizes and shapes, both stand alone and grouped structures (Plates 122–124). They are built on the edge and down the slope to the end of the wadi terrace. They look like ‘sloped structures’, which makes their function difficult to identify. Indeed, it is unclear whether they are houses, fields or something else. Some of them are built on top of the Iron Age tombs that belong to the southern part of the Mahleya cemetery. These stone structures consist of double stone walls filled with gravel. The walls are around 60 cm to 80 cm thick. They are built of brown and black and sometimes yellowish stones. The shapes include rectangular, square and circular, and some have no regular shape.

CS.2.50.3 (0604838/2532495): This is the area around sites CS.2.50.2, CS.2.50.4 and CS.2.50.5. It includes a group of different structures and tombs. There are two horseshoe stone structures with an opening facing east and around 1.5 m wide; twelve black cairns of white creamy soil and with two to four concentric walls (Plates 126–128). Diameters range from 4 m to 8 m, and height from 40 cm to over 1 m with an average stone size of around 35 cm. Most of these cairns consist of piled stones. Three cairns are attached to other honeycomb-shaped structures with different sizes ranging from 80 cm to 1.20 m in diameter. The site also consists of a group of piled stones of oval possibly pre-Islamic Mahleya-type tombs which are 1 m to 2 m long and 80 cm to 1.20 wide. They have a one-course stone alignment with more stones piled in the middle with or without gravel. However, some tombs do not show any stone alignment. They just look like piled stones.

In addition, the site yielded a group of cleared circular stone structures, horseshoe-shaped stone structure, a group of stone walls, the remains of other possible structures, and nine cleared depressions surrounded possibly by walls of piled stones and gravel. There is also possibly a mosque of rectangular shape. The area also includes a group of rectangular and square stone structures and other possibly rectangular alignments around 40 cm to 60 cm thick and filled with gravel.

CS.2.50.4 (0604913/2532488): This is an Islamic cemetery located behind and south of the houses of Mahleya village, and close to the west bank of Wadi Andam (Plate 125). Here are one hundred and eighty-six oval tombs. The western part of the cemetery could be older than the eastern. The tombs in the western part are oval with a one-course stone alignment of black stones with a north–south orientation, with gravel in the middle but without tomb head-stones. They are around 1 m to 1.80 m long and 1 m to 1.20 m wide. The tombs in the eastern part are similar but they have tomb head-stones of yellow slabs filled with gravel and earth. They are around 80 cm to 1 m wide and 1 m to 2 m long. The cemetery also includes stone wall remains around 35 cm thick, 25 m long with gravel in the middle.

CS.2.50.5 (0604910/2532221): This is an area located on the edge and terrace of the west bank of Wadi Andam. It includes a group of old agricultural fields and cleared areas with some depressions, some Islamic and pre-Islamic tombs as well as some other stone structure (Plate 129). The pre-Islamic tombs are of piled stones and possibly Mahleya-type.

Finds:

The material collected from the surface and the excavated tombs included a large number of Late Iron Age pottery jars, metal objects, personal ornaments as well as chlorite vessels (cf. ElMahi & AlJahwari 2005). The surface of the site is covered with a large number of pottery sherds of which a collection was made. Among these collected sherds, Area one (CS.2.50.1) yielded three Umm an-Nar, one Early Iron Age, 47 Late Iron Age and eleven Middle Islamic sherds in addition to the above-mentioned Late Iron Age material from the excavated tombs. Area two (CS.2.50.2) yielded five Umm an-Nar, eight Wadi Suq, 30 Early Iron Age, 76 Late Iron Age, three Middle-Islamic, two LateIslamic sherds besides those from tombs such as Tomb 1 that yielded 12 Early Iron Age sherds, and Tomb 2

which yielded one Umm an-Nar, three Early Iron Age and four Middle Islamic sherds. Moreover, Area three (CS.2.50.3) yielded only four Late Iron Age. while Area five (CS.2.50.5) yielded 28 Middle Islamic and 25 Late Islamic sherds.

Mahleya CS.2.51 (0604651/2533201), Figure 66:

Size: 28.5 ha.

Structures:

This is the area located between the west bank of Wadi Mahram, which separates it from site CS.2.50, and the black rocky hills west of the site on a black gravel wadi terrace. The south–western part of the area includes the majority of the pre-Islamic and Islamic tombs which were located in three cemeteries. Two are pre-Islamic Mahleya-type and one Islamic period cemetery. In all there are a large numbers of tombs. On the other hand, the eastern and south–eastern parts include a high density of stone structures on the gravel terrace and along the wadi edge and slope. There are also other possibly pre-Islamic tombs and piled stones. The western and northern parts of the area include scattered cairns, more possibly pre-Islamic tombs, and possibly platforms, piled stones, and other stone structures and wall remains. Each cemetery, the surrounding mounds, the stone structures along the edge and any special features were given the following separate numbers:

CS.2.51.1 (0604651/2533201): This site includes a group of stone structures in which some are linked with a low mound. There are other stone structures along its sides which reach a height of around 2 m (Plate 135). It also includes four mounds associated with stones structures on their tops and slopes. There are also depressions on these mounds which could be the remains of wells or they could be a result of some disaster which destroyed the building and left a depression. They extend over an area of around 80 m by 50 m. Moreover, there is one stone wall around 50 cm thick which extends around the wadi terrace edge and may mark the mounds' boundaries. The site also has a group of stone structures and piled stones (Plate 134). The site has a huge number of pottery sherds, mainly coarse Iron Age ware of pinkish and yellowish colour (Plate 136).

CS.2.51.2 (0604474/2532934): This site includes an Islamic cemetery of eighty-six oval tombs (Plate 130).

CS.2.51.3 (0604485/2533147): There are one hundred and ninety-three oval tombs that are similar to our excavated Mahleya tombs of the Late Iron Age/Samad Period, but they are slightly bigger. They are around 2.5 m to 4 m long and around 1.5 m to 2.5 m wide. The site also includes four circular tombs of piled stones, and one Islamic tomb of a child or infant which has two head-stones.

CS.2.51.4 (0604472/253333): Here there are two hundred and ten oval tombs of the Mahleya-type.

CS.2.51.5 (0604509/2533065): This is an area that is located on the edge of a wadi cut-section or small wadi tributary. It includes a group of stone structures of square, rectangular and circular shape. It also consists of a stone wall around 1 m thick which extends along the edge of the wadi, and down the tributary before rising up again to another wadi terrace where it divides into two. One part crosses the terrace and goes down to the wadi tributary while the other part turns around the terrace edge before proceeding down to the same tributary.

CS.2.51.6 (0604700/2533427): Here is a group of stone structures of possible agricultural fields and retaining walls. There are also structures along the edge of the west bank of Wadi Mahram and its slope. These structures look like what can be called ‘sloping stone structures’ (Plate 131–133). It also includes a group of piled or paved stones which resemble platforms, and a group of circular and oval stone structures. In addition, there is a black gravel hill with a possibly fortified site that includes a group of stone walls of different shapes. These are mostly rectangular and square, though are circular, structures. These and the stone wall extend along the eastern edge with some possibly round towers of irregular line, as well as a group of piled stones which could possibly be pre-Islamic tombs.

CS.2.51.7 (0604601/2533811): This is the area that includes scattered cairns (Plate 137), stone structures, possible Islamic and pre-Islamic tombs, possible platforms, piled stone, cleared circular alignments, and stone walls of possible structures. It also includes a *mihrab* with a one-course stone alignment around 10 m long (Plate 138).

CS.2.51.8 (0604906/2534388): This is a small wadi terrace between the two main terraces of Wadi Mahram close to the wadi's west bank. It consists around thirteen cairns and honeycomb cairns, some possibly pre-Islamic tombs and stone structures some with circular alignment, some with square alignment, and some semi-rectangular structures with round corners. There are also four cairns/towers with white creamy soil.

Finds:

The site is covered with large amount of pottery sherds, mainly coarse Late Iron Age ware. Among the collected sherds from the site's surface are one Umm an-Nar sherd, 37 Early Iron Age, 213 Late Iron Age, four Early Islamic and 14 Late Islamic. Apart from pottery sherds, other finds included a surface fragment of chlorite grinding stone from CS.2.51.1 (W.D.034: Plate 346); three shells from CS.2.51.7, Tomb 2 (W.D.089–W.D.091: Plate 347); three fragments of green glass from CS.2.51.8, Tomb 4 (W.D.120–W.D.122: Plate 348); two fragments of glass bracelets with green, light green, yellow and brown colours from CS.2.51.8, Tomb 6 (W.D.032 & W.D.131: Plates 349–350, Figure 58) and five shells from CS.2.51.8, Tomb 7 (W.D.101–W.D.105, Plate 351).

Al-Ghoryeen CS.2.52 (0604445/2532515), Figure 56:

Size: 15 ha.

Structures:

This is the largest site. It produced more consistent evidence of the Umm an-Nar period. It is an Umm an-Nar complex (village) built on the west bank of Wadi Andam, near al-Ghoryeen village where the south–eastern side of the site meets with the village's Islamic cemetery and its date palm groves. The site includes a round tower, yellow Umm an-Nar tombs, a Mahleya-type tomb field mingling with Umm an-Nar structures and tombs, Umm an-Nar houses and other stone structures. The site was divided into six areas as follows:

Area **CS.2.52.1 (0604429/2532422)** includes an Umm an-Nar round tower around 25 m–30 m in diameter and 5 m–8 m high (Plates 54–55). Its surface consists of piled stones, with the possibility of some kind of cairn or other stone structure superimposed on it and at the side of which is a depression, which could be some sort of pit, and is approximately 40 cm in diameter. Similar piled stones structures or cairns have also been noticed on top

of the round/rectangular Umm an-Nar tower in the al-Khashbah area. In addition, Area **CS.2.52.2 (0604486/2532502)** includes fifty-eight tombs of the Mahleya-type. They are mainly circular in shape with some ovals. This cemetery also consists of possible Umm an-Nar tombs. It is possible that they were built on top of the Umm an-Nar tombs and that their stones were used to build the later tombs, on top of which, however, were found some yellow stones from Mahleya-type tombs (Plate 56). Area **CS.2.52.3 (0604505/2532588)** is the north-east part of the cemetery. It includes one hundred and forty-four Mahleya-type tombs with mixed stone structures, possibly the remains of Umm an-Nar houses. There is also a large number of Umm an-Nar pottery sherds (Plates 57 & 139). The cemetery may also contain Umm an-Nar tombs (Plate 58). Again, it is possible that the Mahleya tombs were built on top of the Umm an-Nar tombs using their stones. Moreover, Area **CS.2.52.4 (0604524/2532088)** consists of forty-three Umm an-Nar yellow tombs and three black cairns with white creamy soil and travertine stones (Plate 59). Area **CS.2.52.5 (0604336/2532238)** yielded a group of stone structures of different shapes and sizes (square, rectangular and circular) (Plates 60–61). They are free-standing and grouped units with a large quantity of Umm an-Nar pottery sherds, in particular in the western and southern parts of the site. The pottery is fine painted Umm an-Nar ware with distinctive sherds of different rims, bases and necks. The structures were disturbed by a new fence and recent Islamic tombs. It also includes nineteen stone piles, one possible Umm an-Nar tomb, and three possibly Mahleya-type tombs with yellow and black stones. Lastly, Area **CS.2.52.6 (0604554/2531976)** forms the south-eastern part of the site. It includes an Islamic cemetery with old agricultural fields and date palm groves. However, it is mixed with older pre-Islamic tombs, possibly Mahleya in type, some cairns from earlier periods (Plates 62–63), as well as several stone structures such as horseshoe and circular structures, and possible platform.

Finds:

A group of 309 Umm an-Nar pottery sherds were collected from the surface of these sub-sites in which 157 are from tombs and 152 from other structures. In addition, among the collected pottery sherds there is one Wadi Suq, 38 Early Iron Age, 73 Late Iron Age, two Middle Islamic, 39 Late Islamic and other possible Islamic sherds. Apart from pottery sherds, other surface finds included a fragment of softstone vessel that possibly represent a part of rim with incised double circle and dot row between two horizontal lines with 5 mm

rim thick (Plate 64 & Figure 57). Moreover, the site yielded four fragments of shells from CS.2.52.3 (W.D.085–W.D.088: Plate 352) and another fragment of shell from CS.2.52.6 (W.D.100).

Mahleya CS.2.53 (0605338/2532264):

Size: 14.3 ha.

Structures:

This is an area located on black rocky hills and their slopes in the eastern part of Mahleya village and its date palm groves as well as on the east bank of Wadi Andam. The area includes a group of stone structures of different shapes and sizes with some possible cairns and tombs (Plate 194). The stone structures are circular, square and rectangular as well as other irregular ones. One of the structures is rectangular in shape with rounded corners with an entrance in the middle of the northern wall which is around 80 cm thick (0605338/2532264). Some of these structures might be observation towers. One possible tower has a 60 cm thick wall. It is wholly built of piled black stones. The tower is 1 m high with a 6 m diameter and a pit in the centre which is 2.2 m in diameter. There is a possible entrance facing north which is around 60 cm wide (Plate 190). It is built on the edge of a black rocky hill and overlooks Mahleya village and its date palm groves (0605410/2532329). There are other groups of piled stones of different shapes and sizes several of which might be pre-Islamic tombs with stones plied in a circle which are around 20 cm high and 1.2 m in diameter (0605438/2532278). The site also includes several cleared stone circular alignments around 1.5 m to 3 m in diameter, horseshoe structures (Plate 191 & 193), animal traps (Plate 192), and a cut-section between the rocky hills which runs from top to bottom (Plate 195). The section is around 2 m wide and around 1.5 m high (0605476/2532406). Finally, the site yielded some cairns of piled stones around 3 m to 8 m in diameter, as well as a pottery scatter associated with a group of piled stones.

Finds:

The site yielded several pottery sherds in which a collection was made including one Umm an-Nar sherd, 23 Late Iron Age and 52 Middle Islamic.

Mahleya CS.2.54 (0605968/2533007), Figure 108:

Size: 0.0096 ha.

Structures:

The site consists of a stone structure more or less oval in shape. It has a semi-circular entrance like a porch in the west with a small circular stone structure in the east which is around 1.5 m in diameter. It was built as part of the north-eastern wall of the main structure (Plate 353). It could have also been built to separate the new born baby goats. There are wooden pillars on the inside perimeter of the structure which may have served as pillars to support a wooden roof to shelter the goats. Fire, ash traces and pottery sherds were found on the floor. The structure is around 12 m by 8 m. Its wall is around 90 cm high and 60 cm thick and is built of yellow and grey stones. The structure is kidney-shaped.

Finds:

Few pottery sherds were collected from the structure in which all are Islamic, mainly Late Islamic.

Mahleya CS.2.55 (0606055/2533353), Figure 109:

Size: 93.84 ha.

Structures:

CS.2.55 (0606055/2533353): This is the area located between the date palm grove on the east bank of Wadi Andam and the yellow rocky hills. This area contains a large tomb field of both Islamic and pre-Islamic tombs. It also includes large old agricultural fields and an old mudbrick quarter as well as other stone structure remains in the shape of a horseshoe, cleared circles and rectangular structures (Plate 354). The site was divided into four areas. The first **CS.2.55.1 (0606055/2533353)** is an Islamic cemetery with possibly other pre-Islamic tombs which are circular and oval in shape and possibly of the Mahleya-type (Plates 355–358). It also includes the remains of other circular, square and rectangular stone structures (Plates 359–360), walls as well as piled stones, cleared stone circular alignments, and other horseshoe stone structures and wall remains. Moreover, Area two **CS.2.55.2 (0605728/2533227)** includes old agricultural fields along the east bank of Wadi Andam which extend south as far as the old mudbrick quarter (Plates 361–362). These old

agricultural fields have been divided into smaller units which have sub-division walls which are 90 cm–100 cm thick, over 1 m high and filled in with gravel. There are also stone rectangular and square structures filled with fine gravel which look like mounds. These extend along the fields' walls. Area three, **CS.2.55.3 (0605645/2533170)**, consists of a large Islamic cemetery that runs between the yellow rocky hills and the old agricultural fields (Plate 363). This cemetery seems to have been continuously used until recent times. The middle of the cemetery has been eroded by water so tomb structures are now covered by silt and hardly distinguishable from their head-stones. It was, thus, difficult to count the tombs. Many of them look oval in shape, around 1 m to 2 m long and 80 cm to 1.2 m wide. Their central parts have been filled with gravel. They have one or two head-stones of north–south orientation. This area also yielded four pre-Islamic tombs of oval shape with piled stones and a one-course stone alignment, and east–west orientation. They range 1 m to 2 m width and 2 m to 4 m length. It also yielded a group of square and rectangular stone structures and stone wall remains between the date palm groves and the cemetery. Their walls range from 40 cm to 60 cm thick with gravel in the middle. Furthermore, Area four **CS.2.55.4 (0605402/2532755)** consists of the old mudbrick village of Mahleya (Plates 364–365). The village is surrounded by an outer wall and a gate in the north. The houses are small and of one or two storeys. Though they are built of mudbrick they have stone foundations and roofs made of a mixture of mud and date palm fronds and trunks.

Finds:

Among the collected pottery sherds from this site is one Umm an-Nar sherd, 25 Middle Islamic, 26 Late Islamic and four of Recent time. Other surface finds included four fragments of shells from CS.2.55.1 (W.D.078–W.D.081)

Mahleya CS.2.56 (0603578/2532171), Figure 55:

Size: 16.5 ha.

Structures:

This is an area west al-Ghoryeen. It includes a group of cairns with white creamy soil as well as magnesium carbonate stones ($MgCO_3$) (Plate 90). Their diameter ranges from 4 m to 10 m with a height from 40 cm to over 1 m. The cairns have between 2 and 6 concentric

walls. One cairn (0603430/2532508) has two double-stone walls on top with gravel or small stones in the middle. These walls are around 1 m thick (Plate 366). The cairn looks like an Umm an-Nar tomb but of black stones. It could be a re-used Hafit cairn with an Umm an-Nar tomb built on top. The possible Umm an-Nar tomb is around 5 m in diameter, while the total diameter of the cairn which has 4 concentric walls is around 10 m. The possible Umm an-Nar tomb has internal walls. The site also includes a group of piled stones of no regular shape, three cleared stone circular alignments which are around 4–5 m in diameter, scattered stones, and possibly five oval pre-Islamic tombs of one stone course alignment with gravel in the middle. They are around 1 m to 3 m long and 80 cm to 2 m wide.

Finds:

Among the collected pottery sherds from this site are two Umm an-Nar sherds, five Wadi Suq, 49 Early Iron Age, 49 Late Iron Age, and three Late Islamic sherds.

Mahleya CS.2.57 (0603975/2532751), Figures 55 & 69:

Size: 6.125 ha.

Structures:

The site consists of possibly five oval Islamic tombs around 1.2 m long and 80 cm wide with a north–south orientation. The site also includes stone structures of different shapes and sizes. They are oval, circular, square and rectangular in shape, and their walls are around 80 cm thick and filled with gravel (Plates 156–159). It also includes a stone wall which extends east–west. The wall is around 80 cm thick with two circular stone structures on the east and west corners (Plate 158). The wall has an almost 6 m diameter. It is composed of piled stones of black and yellow limestone which have been badly disturbed. They could be pre-Islamic or possibly Umm an-Nar tombs.

Finds:

The site yielded a large number of pottery sherds in which a collection was made including 54 Umm an-Nar sherds, 77 Late Iron Age sherds, 14 Late Islamic sherds and 15 of Recent date. Other finds included only a fragment of shell (W.D.065).

Mahleya CS.2.58 (0603584/2532848), Figure 55:

Size: 1.125 ha.

Structures:

The site consists of a stone wall on the edge of a black rocky hill and its slope. It forms what looks like a 'necklace' (Plate 367). Around 80% of the wall runs along the ridge and down the slopes while the other 20% runs along the lower side. There are many short gaps in the wall on the slope inside the perimeter wall (terraces? platforms?).

Finds:

Around 17 Late Iron Age sherds were collected from this site.

Al-Ghoryeen CS.2.59 (0603844/2530041):

Size: 20 ha.

Structures:

The site consists of twenty tombs on yellow rocky hills that are located on the east bank of Wadi Andam (Plates 368–369). Most of them look like collapsed Beehive tombs with one or two double-skin walls around 80 cm to 1 m thick. Their diameter varies from 4 m to 6 m and their height ranges from 40 cm to over 1 m. They are built of yellowish-grey crude stones. Some are attached to between two and six circular or oval honeycomb burials the sizes of which vary from 80 cm to 1.2 m in diameter for the circular ones and from 80 cm to 1 m wide and from 1 m–1.5 m long for the oval ones. Some of the tombs have central pit of around 1 m to 1.50 m in diameter. The site also includes a group of other oval or circular tombs which have either an oval, circular or rectangular central pit. The oval tombs are 1 m to 6 m long, around 80 cm to 3 m wide, and between 60 cm and 1.50 m high. The circular tombs are around 3 m to 5 m in diameter with the same height as the oval tombs. They are built of crude brown and yellowish-grey stones. There is also a group of different honeycomb burials of varying size and number which are built of yellowish-grey stones. They have collapsed and look like stone piles. There are between 5 and 20 burials in each honeycomb. The burial sizes vary from 80 cm to 1.50 m in diameter for the circular ones and around 1 m to 2 m long and 80 cm to 1 m wide for the oval ones. The site also yielded a group of piled stones which some of may possibly be tombs. They

are around 40 cm to 1.50 m in diameter and around 20 to 30 cm high. They are built of black and brown stones. Some have a number of yellow stones on top.

Finds:

No finds

Al-Ghoryeen CS.2.60 (0603725/2529849):

Size: 1.53 ha.

Structures:

This site yielded a group of square, rectangular and circular stone structures all of which appear to be detached units (Plate 370). Most of them are badly disturbed with walls around 80 cm thick and 90 cm high in their well preserved parts. They are built on the edge and yellow rock slopes of the east bank terrace of Wadi Andam. The walls have been filled in the middle with gravel and are around 90 cm to 1 m high. The site also includes a group of piled stones and alignments of other oval, possibly Islamic tombs.

Finds:

Among the few collected pottery sherds from the site are six Early Iron Age, ten Late Iron Age, four Early Islamic, one Late Islamic and four of Recent date. Other finds included only a fragment of shell (W.D.066).

Al-Ghoryeen CS.2.61 (0603709/2530443):

Size: ?

Structures:

The site includes stone walls on the west bank of Wadi Andam, just opposite site CS.2.59. They have rectangular shapes and so could be part of a field with a long stone wall running along the edge of the wadi terrace. The remains of a *falaj* channel extends along the edge of the wadi terrace. The channel is around 60 cm wide with plaster remains and two-courses of stone alignment.

Finds:

Very few sherds were collected from the site including three Umm an-Nar sherds, two Late Islamic and possible other six Islamic.

Al-Ghoryeen CS.2.62 (0602985/2529774), Figure 110:

Size: 80 ha.

Structures:

This site yielded a group of piled stones scattered over a large area (Plate 202). The stone piles are of different sizes from around 40 cm to 1.50 m in diameter, and from 15 cm to 50 cm high. Some of these piles look like both pre-Islamic and Islamic oval tombs (Plate 203). The site also yielded several stone structures of different types and shapes but with one-course stone alignment. They are circular, square and rectangular structures of both standing alone and grouped. Many of these structures have stone foundations to a depth of around 1 m. The structures then were completed using mudbrick the remains of which remain visible (Plates 196–198). In addition, the site includes a large area with old agricultural fields sub-divided into smaller fields (Plate 199). They have walls around 80 cm to 1 m thick and filled with gravel. They are over a meter high with piled fine gravel and earth. The small mounds on top of some of the walls look like square or rectangular stone structures. They extend along the edge of the west bank terrace of Wadi Andam. They are part of a ditch which runs along the fields west of what appears to be a 1 m wide *falaj* channel. There is also a group of cleared pits or depressions with their clearance earth and gravel piled around them. They are around 80 cm deep (maximum), and have a circular appearance with a 4 m to 6 m diameter. They extend over an area of around 90 m. Moreover, the site yielded two Islamic cemeteries. One has 37 oval tombs and the other has 129 oval tombs (Plates 200–201). They vary in size from 1 m to 2.5 m long and from 80 cm to 1.20 m wide. They are built of a one-course stone alignment. Finally, it includes cleared stone alignments of circular and rectangular shapes, a possible mosque with disturbed *Mihrab* in the middle of the western wall of around 1 m wide, a horseshoe stone structure and scattered stones of possible other structures that could be circular in shape.

Finds:

A large collection of pottery sherds were made from the site including four Late Iron Age sherds, 39 Middle Islamic, 42 Late Islamic, seven Recent and other possible Islamic sherds.

Al-Ghoryeen CS.2.63 (0602893/2528851):

Size: 3.445 ha.

Structures:

This site includes 31 oval Islamic tombs with a one-course stone alignment 1.5 m to 2 m long and 80 cm to 1 m wide filled with gravel. It also includes an old agricultural field with badly preserved stone walls around 60 cm to 80 cm thickness with gravel in the middle. Moreover, the site yielded an area of around 10 m by 6 m with a concentration of shells, mostly bivalves, without any associated pottery or structures (0602922/2528838). Other types of structures included two cairns around 3 m to 4 m in diameter with white creamy soil and are around 60 cm to 80 cm high. There is also a group of small piled stones around 60 cm to 80 cm in diameter and 15 cm high, as well as a cleared circular alignment around 8 m in diameter.

Finds:

Very few sherds collected from the site including one Late Islamic sherd and ten sherds of possible Middle to Late Islamic sherds. Other surface finds included complete and fragments of shells (W.D.035–W.D.055: Plate 371).

Al-Ghoryeen CS.2.64 (0603218/2528589):

Size: 20 ha.

Structures:

Here is a group of large, rectangular and circular stone structures in the middle of which is a single circular structure that has an entrance facing west. It is around 80 cm wide and a wall around 80 cm thick and 2 m in diameter (Plate 372). The structures are built of grey and yellow wadi stones. The walls are built of solely stone with possible gravel in the middle. They are around 60 cm to 80 cm high in the well-preserved parts. In addition,

there are stone structures on the yellow rocky hill. These are two parallel walls around 2 m long and 2 m apart. The southern wall has a small attached stone semi-circle around 1 m in diameter. The site also includes a group of one-course stone cleared circular alignments. Their diameters vary from 1.50 to 10 m (Plate 373). There is also another group of piled stones around 60 cm to 1.20 m in diameter and 15 cm to 30 cm high. Moreover, the site consists of a group of cairns of piled stones around 3 m to 8 m in diameter and around 40 cm to 1 m high (Plate 374). Additionally, there are seven standing and collapsed Beehive tombs. They are built on the yellow rocky hills using crude yellow stones. They have two double-skin walls around 80 cm to 1 m thick for each wall with the entrance facing east. This is around 30 cm to 50 cm wide and 50 cm high with a large stone used as lintel over the entrance. The internal walls have corbelling and the chamber is around 1.50 m from the base. The tombs' diameters vary from 4 m to 6 m, and their height ranges from 1 m to 2.50 m. Some of them are attached to honeycomb burials of around two to six burials which are around 80 cm to 1.50 m in diameter. Finally, the site yielded the remains of several stone walls, scattered stones, cleared circular alignments and one small horseshoe stone structure of around 80 cm in diameter.

Finds:

Few pottery sherds were collected from the surface of the site, including five Early Iron Age sherds, 15 Late Iron Age, three Late Islamic and two of Recent date.

Al-Ghoryeen CS.2.65 (0602129/2528571):

Size: ?

Structures:

The site includes a cairn of white creamy soil with 4 concentric walls (Plate 375). It is around 5 m in diameter and 50 cm high. The site also consists of a group of small stone piles around 80 cm to 1.20 m in diameter and 10 cm 15 cm high. There is also a *Mihrab* with a one-course stone alignment around 10 m long (Plate 376).

Finds:

Pottery sherds were collected from the surface of this site, including 52 Late Iron Age sherds.

Khadra Bani Dafa'a CS.2.66 (0602590/2523989):

Size: 0.66 ha.

Structures:

The site is an Islamic cemetery of 64 oval tombs located north of Khadra Bani Dafa'a. The tombs consist of a one-course stone alignment and are built of dark brown stones. They are around 1.5 m to 3 m long and 1 m to 1.20 m wide, and filled with gravel. They have a north-south orientation.

Finds:

No finds

Khadra Bani Dafa'a CS.2.67 (0602606/2524536):

Size: 19.25 ha.

Structures:

This is the area located north Khadra Bani Dafa'a that includes seven intact and collapsed Beehives and 21 Hafit cairns of different sizes. They are built on top of yellow and black rocky hills and their slopes (Plates 17 & 113-114). All the Beehive tombs are built with double-skin stone walls around 80 cm to 1 m thick for each wall with a pit or chamber in the middle having a 1.2 m diameter at the base. Some of the tombs are attached to honeycomb chambers containing from two to ten burials whose diameters vary from 80 cm to 1.20 m. However, the whole diameters of the Beehive tomb vary from 6 to 8 m with a height ranges from 1 m to 5 m. The tombs are built of crude grey and yellow stones with east facing entrances around 60 cm high and 40 cm wide and roofing stones or lintels. The 21 Hafit cairns sit on top of black rock and gravel hills. They are built of black stones with white creamy soil and are 4 m to 12 m in diameter and 40 cm to over one meter high. Most of them are attached to honeycombs between four and more than twenty burials of different sizes that vary from 80 cm to 1.50 m in diameter. Most of these cairns were disturbed by a bulldozer, which damaged their actual construction. However, this situation allowed us to find a large number of the grave goods such as pottery sherds, arrowheads, beads, metal objects, softstone objects and shells. One cairn (0601531/2525397) yielded a mass of Iron Age pottery sherds of different distinctive forms such as painted, rims, bases,

lugs, spouts, necks, handles as well as one complete softstone vessel with spout. There were other softstone fragments, beads and shells. This particular cairn was the largest. It has 24 burial chambers and is around 12 m in diameter. But it was badly bulldozed. The site also includes a group of small piled stones around 60 cm to 80 cm in diameter and 10 cm high, as well as stone walls remains of no regular shape (Plate 377).

Finds:

Several of the disturbed tombs yielded a group of artefacts. A total of 150 pottery sherds of Early Iron Age were collected from tombs 9, 11, 14, 17, 22, 24 and 26. Tomb 9 also yielded six Late Iron Age sherds, two Late Islamic and five possible Late Islamic to Recent sherds. Moreover, several tombs yielded different types of material such as a small Early Iron Age bronze/copper leaf-shaped arrowhead with midrib (W.D.109, Figure 58), beads (W.D.014 & W.D.023, Plate 106), metal and chlorite objects and shells (W.D.067 to W.D.070, W.D.024, W.D.025, W.D.082 to W.D.084, W.D.110, W.D.111, Plates 97 & 115). Tomb 9 also yielded a large number of Early Iron Age pottery sherds of different distinctive forms such as painted ware, rims, bases, lugs, spouts, necks, handles as well as a complete chlorite vessel with spout (W.D.145; Plates 6 & 116; Figure 60), two chlorite fragments (W.D.142 & W.D.143; Plate 117 & Figure 57), a bead (W.D.144) and shells (W.D.132 to W.D.141, Plate 118). The chlorite bowl has a semi- rectangular spout of c.19 mm wide and 43 mm long and c.3 mm to 8mm deep. The diameter of the bowl at its rim is c.135 mm and at the base it is 70 mm. Depth is c. 54 mm. It includes incised decoration of horizontal lines around the rim and two above the base.

Khadra Bani Dafa'a CS.2.68 (0600901/2524906):

Size: 10.5 ha.

Structures:

This is the area located west of Khadra Bani Dafa'a and north of the main asphalt road connecting Izki with Sinaw. It contains a group of what might be cairns, Islamic tombs and a large number of stone structures and pottery sherds of mainly Umm an-Nar type. The Islamic tombs are either buried, covered by the silt, or badly bulldozed. The area on both sides of the road seems to have been largely bulldozed and this has disturbed most of the archaeological features in that area. Some of the structures identified as possible tombs

show a north–south orientation and are ovoid in shape. The site also includes stone walls of what might have been square or rectangular structures which are badly eroded or have been bulldozed. There is also a high density of Umm an-Nar pottery sherds (Plate 65). There are also stone piles and gravel that may be caused by the bulldozing activities, but they look like cairns. Moreover, there are badly disturbed cairns with white creamy soil (Plate 66). Even more disturbed stone structures were found which also look like cairns but these show stone walling of what could have been square and rectangular structures but in which there is a high density of Umm an-Nar pottery sherds.

Finds:

Among the collected pottery sherds from this site are 137 Umm an-Nar sherds, 18 Early Iron Age, 41 Late Iron Age and 20 Middle Islamic sherds. Other finds included only one large complete shell (W.D.092).

Khadra Bani Dafa'a CS.2.69 (0599855/2525193), Figure 52:

Size: 54.825 ha.

Structures:

This is the area located west of Khadra Bani Dafa'a, and south of the main road connecting Izki with Sinaw, and close to the junction that leads to Wadi Andam (Kharma, al-Ghoryeen and al-Alya villages). It is separated from site CS.2.68 by the main road. In fact, this site could be part of what once might have been a larger site which includes site CS.3.68 but but has now been separated by the main road. The area includes a group of cairns with white creamy soil, stone structures, piled stones and may be a round tower. The area was divided into three parts: the western part CS.2.96.1, the eastern and south–western part CS.2.96.2 and the most southerly CS.2.69.3. These areas include the following:

CS.2.69.1 (0599855/2525193): Here are twenty-six cairns and small oval tombs in the western part of the site. The cairns are built of black stone with white creamy soil and white travertine stones (Plates 67–68). The cairn diameters vary from 2 m to 10 m and from 20 cm to 1 m high. Several of them consist of two to five walls which sometimes are hardly noticed as some of the cairns are badly disturbed. Other cairns consist of attached

honeycombs of two to six burials. Some cairns are small around 90 cm to 3 m in diameter, and look like piled stones which are around 10 cm to 15 cm high. Some cairns are oval-shaped around 1 m to 4 m long, 80 cm to 3 m wide and around 15 cm to 25 cm high. They have a one-course stone alignment and are built of black stones and white creamy soil. They have gravel in the middle, an east-west orientation, and are around 1 m to 2 m long and 80 cm to 1.5 m wide. The site also includes a group of piled stones around 80 cm in diameter and 10 cm high.

CS.2.69.2 (0600448/2525090): This is the eastern and south-western parts of the site. It includes a group of low gravel mounds with travertine white stones. These mounds have stone walls which may be the remains of collapsed buildings or houses. There is a high density of Umm an-Nar sherds. One large mound, possibly an Umm an-Nar round tower with a stone wall perimeter was found (Plate 69). It is around 5 m high and 25 m in diameter. The surrounding walls are of black stone. It also has stone wall remains on top of it. It is surrounded by a group of other lower mounds, possibly houses ruins. Thirty-four low mounds were counted in this area. The site also includes four cairns with white travertine stones and white creamy soil.

CS.2.69.3 (0600174/2524740): This is the southern part of the area and includes a group of low mounds of white travertine stones around 5 m to 8 m in diameter and 1 m to 2.5 m high. These mounds show no evidence of walls or any other human activity. The site also includes some piled stones. More stone wall remains are scattered all over the site.

Finds:

Among the pottery sherds collected are 102 Umm an-Nar sherds, 28 Early Iron Age, five Late Iron Age, three Middle Islamic, three Late Islamic and 18 other Islamic sherds. The site also yielded other objects from the cairns in the first part of the site (CS.2.69.1). These include a complete shell (W.D.117, Plate 70), flint worked pieces (W.D.009, W.D.010 & W.D.118, Plate 30) and one copper/bronze arrowhead (W.D.116; Figure 58). This arrowhead is long leaf-shaped with midrib and is 5.8 cm long excluding a handle of 1 cm long and 3 mm wide. Moreover, one small flint arrowhead was found at tomb 4 (W.D.129; Plate 3).

APPENDIX B:
SITES/FEATURES TYPOLOGY

APPENDIX B: SITES/FEATURES TYPOLOGY

During the survey, a large number of archaeological sites/features were recorded, which have already been indicated in Appendix A. Making site typology is an important task to show what type of sites are we dealing with; their function and nature. This will also permit us to trace the distribution pattern of each type and its possible location as well as the range of different sites found and their preservation within the context of landscape preservation and the processes of landscape formation. It should, however, be said that site typology was problematic, particularly for the tomb types (see Chapter Four, Section One 4.1.2.3). The problem for tomb typology is related to the fact that a large number of tombs was found. These tombs often show more similarities than differences and their state of preservation makes it difficult sometimes to identify them as most of their structural features are badly disturbed and damaged. Dating these types is also problematic as some of them show no datable material- except for those called '*cairns with white creamy soil and cairns with honeycomb*'. These showed materials such as pottery, softstone vessels, metal objects, beads and shells. Although these tombs yielded datable materials, they still presented different problems regarding their dating and structures. These tombs were re-used over time (see for example Chapter Three 3.2) and their problem is that they could have been badly disturbed and included materials (mainly Iron Age pottery, softstone vessels, metal objects, beads, and shells [see Appendix H]) from different periods, which does not help in defining the relative chronology of single burials within them. The same might be true for those called '*Beehives or cairns with honeycomb*' which are attached with other burials that might be latter additions.

Apart from the above difficulties an attempt was made to create a rough or primary site/feature typology. The following is a classification or typology of sites/features recorded by the survey. The definition and classification of some of the sites/features indicated here might slightly differ in description and characteristics from other similar sites in other parts of Oman. This description is mainly based on what was found and observed on the surface during the survey.

The archaeological sites found during the survey can be classified mainly into three broad categories (Table B.1): STRUCTURE, EARTHWORK and ARTEFACT. The first two

types include all those sites yielding evidence, either above or below ground, which have been made and left by man until discovered by archaeologists. These might include settlements, tombs, workshops, earthworks, land activities and any observable feature or other structural remains. The third type includes all what had been used in the form of tools and objects or their manufacture debris left behind by man. These were easily recordable and portable, if necessary. These objects or artefacts have been made from different materials such as stone, metal, wood, bone and shell. It is worth mentioning that some of the site types could be attributed to more than one broad category or sub-category as will be seen in the following presentation.

Category	Description
ARTEFACT	Includes any type of artefact (e.g. object(s) or tool(s)) that have been made or modified by man through the passage of time. They can be found scattered over small or large areas with high or low density and they may not be attributable to any specific archaeological context. They might be a scatter of shells, bones, lithics, pottery, etc. These can tell us important information about the type, nature and history of the site. They might be the remains of a possible buried site of possible structural remains.
EARTHWORK	Includes any feature resulted from human changes or modifications of the ground surface such as traces of earth-moving activities (clearance mounds, well-sections and land-soil movements), traces of fields or gardens and installations such as irrigation systems.
STRUCTURE	Includes several types of buildings and structures that can be used for different purposes and functions. In this respect, several types of buildings or structures can be attributed to this type. These include domestic and habitation structures (large and small; sedentary and temporary); ritual, mortuary and religious structures (tombs and mosques); defensive and fortified structures; industrial and crafts structures; agricultural structures and other related structural features. However, the function of some of these structures might be unidentifiable. The nature of these structures might be complete undisturbed standing building/structures, partly disturbed or ruined. They might be aboveground, semi-or completely buried underground.

Table B. 1 shows the three broad categories classified for the different archaeological sites/features recorded during the Wadi Andam Survey

The following is a description of the different recorded sites/features during the Wadi Andam Survey. They are presented in alphabetical order. The description will start with

the category STRUCTURE as it represents the largest percentage of recorded features which are more obvious on the surface such as different types of buildings and structures.

B.1- STRUCTURE:

B.1.1- Ritual, mortuary and religious structures:

B.1.1.1- Tombs

Site/Feature Type	Description
Beehive Tomb	<p>A Beehive tomb is circular from the base and the general shape looks like a Beehive. It has a single small burial chamber in the middle of 1m–2m in diameter from the bottom with corbelling in which narrows as it raises up- this can explain the corbelling of the walls. The inner corbels serve as ceiling stones with an outer course sloping inwards to form the Beehive or convex shape. The tomb has an entrance facing the east at ground level of around 50 cm to 80 cm high and around 30 cm to 50 cm wide with a roof stone or lintel on top of the entrance. In some examples, the entrance was sealed by the outer wall or by oversailing slabs. The walls are usually of double-skin stone from 80 cm to 1.50 m thick and built on a circular stone base of crude yellow flat hewn stones with an average stone size of around 30 cm and with kerbstones with possible external plinth of around 50–60 cm wide. The tomb stands to a height of around 2 m to 3 m according to the state of preservation, and around 3 m to 6 m in diameter at the base.</p> <p>Sites: CS.1.1, CS.1.3, CS.1.4, CS.4.13, CS.5.8, CS.5.11, CS.5.19, CS.7.2, CS.2.42, CS.2.59, CS.2.64, CS.2.67</p>
Beehive with honeycomb	<p>This type of tomb was found in large numbers on top of the yellow rocky hills along the Upper Wadi Andam from al-Alya village to Khadra Bani Dafa'a. These could be collapsed Beehive tombs and, in a later period, a group of burial chambers were attached to them using their original stones and forming what looks like honeycomb burials. It is possible that they both built at the same time. The number of burials varies from two to more than ten with different sizes of around 80 cm to 1 m in diameter. They are mostly circular in shape, although some examples show burials with oval shape of around 80 cm wide and around 80 cm to 1.20 m long. The total diameter of the tomb is around 6 m to 8 m, and the height is around 60 cm to over 1 m. However, the attached burials are normally lower than the central tomb. These are built of crude yellow and grey stones with an average size of around 30 cm. Some of these burials show cab or roof stones of yellow limestone.</p>

	Sites: CS.2.42, CS.2.64, CS.2.67
Burial cairn/mound	An aboveground structure which looks like a pile of large unshaped piled stones or rubble of different sizes and colours, mainly black to brownish and yellowish, as well as mixed with earth and other smaller stones. They were used to bury the dead. See also Hafit cairns.
Cairn with honeycomb	<p>Similar in construction to the cairn with white creamy soil, a cairn with several attached burial structures of different sizes and number forming what looks like a honeycomb. These burials are either circular or oval in shape of around 80 cm to 1 m in diameter for the circular ones, and around 80 cm wide and around 80 cm to 1 m long for the oval ones. Sometimes they show cap stones (roof stones) of yellow limestone. They vary in number from two to more than twenty burials. The total diameter of the cairn varies according to the number of attached burials; however, it ranges from 6 m to 12 m in diameter. These attached burials could be late additions to possibly older cairn. Similar to the cairn with white creamy soil, this type of tomb yields similar Iron Age material.</p> <p>Sites: CS.2.69, CS.2.42, CS.2.50, CS.2.51, CS.2.56, CS.2.59, CS.2.67</p>
Cairn with white creamy soil	<p>It is built of brown and black stones mixed with white creamy soil and gravel and sometimes with white stones of either Magnesium Carbonate (MgCo3), which comes from the aphiolite veins, or Travertine stones. The diameter ranges from 4 m to 10 m, and around 40 cm to 2 m height. It consists of different concentric walls ranging in number from 3 to 6 walls. It is difficult to identify any burial chamber, entrance, roof, passage or other structural characteristics. It is usually badly disturbed and yield some finds such as pottery, softstone, beads, metal objects, human bone fragments and shells the majority of which are Early Iron Age, indicating a re-use of Hafit tombs during later periods.</p> <p>Sites: CS.2.68, CS.2.69, CS.2.4, CS.2.50, CS.2.51, CS.1.4, CS.3.8, CS.4.14, CS.4.17, CS.4.18, CS.5.10, CS.5.11, CS.5.12, CS.5.13, CS.5.14, CS.7.2, CS.7.4, CS.9.3, CS.9.13, CS.2.1, CS.2.8, CS.2.24, CS.2.42, CS.2.56, CS.2.63, CS.2.65</p>
Cairn-field	<p>An open area either on outcrops and their slopes or on a flat landscape where a group of cairns were constructed in clusters.</p> <p>Sites: See Hafit cairn</p>
Cemetery (also Graveyard, Burial Ground, Tomb-filed)	An open or fenced/walled defined area of ground specified for the burial of the dead.

	<p>Sites: Several sites yielded burial grounds, examples include CS.5.4, CS.5.9, CS.2.68, CS.2.69, CS.2.50, CS.2.51, CS.2.43, CS.1.4, CS.3.10, CS.7.2, CS.7.4, CS.2.1, CS.2.14, CS.2.45, CS.2.55</p>
Collapsed Beehive tomb	<p>A collapsed Beehive tomb is similar to a Beehive tomb but more or less collapsed. Its diameter varies from 5 m to 8 m. It consists of one or two visible double-skin walls around 80 cm to 1 m thick. In some instances it is hard to notice any wall as a result of its bad state of preservation. The tomb has a central chamber, hardly distinguishable. The tomb's height varies from 30 cm to 2 m. However, as a result of heavy disturbance, it is sometimes very difficult to say anything about the tomb's size or even its shape.</p> <p>Sites: CS.1.3, CS.1.4, CS.7.2, CS.2.16, CS.2.42, CS.2.47, CS.2.64, CS.2.67</p>
Covering slab (also Capstone)	A piece of stone, mainly of limestone or calcareous sandstone that is used to cover the roof of the subterranean tomb's burial chamber.
Grave (also tomb)	A place of burial either below-or-aboveground of different types, sizes and shapes.
Hafit cairn	<p>It is an overground structure which looks like a pile of large unshaped piled stones of different sizes and colours, mainly black to brownish and yellowish, as well as mixed with earth and other smaller stones. The walls are hardly distinguishable but some possible 1–4 concentric ring-walls can be attested with a thickness ranging from 30 cm to 1 m. The tomb has a single and simple burial chamber in the centre of possibly semi-circular or oval shape with an inner wall and another one or two outer walls. Diameters vary from 1 m to 2.50 m with a height of around 1.50 m to 2.40 m based on the state of preservation. The chamber is possibly paved with flat stones. Entrance is hardly distinguishable, possibly blocked and sealed by two concentric walls. Some chambers show possible low single entrance, possibly rectangular or trapezoidal with one lintel stone slab. The total size of the cairn is around 2 m to 12 m in diameter with a height of around 30 cm to 3 m. No specific shape can be distinguished for the outer appearance of the cairn more than a pile of stones.</p> <p>Sites: CS.5.2, CS.5.2.5, CS.2.68, CS.2.69, CS.2.51, CS.4.2, CS.2.53, CS.1.1, CS.1.4, CS.3.8, CS.4.3, CS.4.4, CS.4.5, CS.4.9, CS.4.13, CS.4.15, CS.4.16, CS.4.19, CS.5.2, CS.5.3, CS.5.5, CS.5.6, CS.5.10, CS.5.11, CS.5.15, CS.7.2, CS.2.2, CS.2.5, CS.2.16, CS.2.17, CS.2.33, CS.2.41, CS.2.42, CS.2.52, CS.2.59, CS.2.67. See also Hafit survey (CS.6, CS.8, CS.10, CS.11, CS.12, CS.13, CS.14, CS.15, CS.16, CS.17)</p>
Honeycomb tomb	It is a cluster of burials forming what looks like a honeycomb of

	<p>different sizes and shapes. The burials are either circular or oval; however, the majority are oval. Their size ranges from 80 cm to 1.20 m in diameter for the circular ones. The oval ones are from 80 cm to 1 m wide and around 80 cm to 1.50 cm long. They are often built on yellow or grey bed-rocks. They are badly disturbed and their height is around 40 cm to 80 cm.</p> <p>Sites: CS.2.42, CS.2.51, CS.2.59</p>
Islamic cemetery	<p>A group of oval Islamic tombs occurring within close proximity to each other and within a specified part of ground either open or surrounded by fence, wall or enclosure. See also Islamic tomb.</p> <p>Sites: All the villages yielded Islamic cemeteries as well as other sites such as CS.5.1.2.3, CS.2.50, CS.2.51, CS.3.5, CS.3.7, CS.4.12, CS.9.10, CS.1.4, CS.1.5, CS.3.9, CS.4.3, CS.4.8, CS.5.17, CS.7.4, CS.9.11, CS.9.14, CS.2.32, CS.2.36, CS.2.37, CS.2.38, CS.2.52, CS.2.55, CS.2.62, CS.2.66</p>
Islamic Tomb	<p>An oval or semi-oval tomb with one or two courses of stone alignments on the surface with gravel and/or earth in the middle. It is around 80 cm to 2 m long and around 80 cm to 1.20 m wide. It has one tombstone placed over or at the head to the north indicating a male and two tombstones on top or at the head to the north and the feet to the south indicating a woman. The tombstone is either of yellow limestone or brown/black gabbro stone. Sometimes we find Islamic cemeteries with two different types of tomb, although no distinctive differences may be noticeable. However, it seems that these two types of tomb represent different periods of time, which may be of short duration. The only difference is that the older type of tombs does not include tombstones but have the same north-south orientation. The Islamic tomb chamber is rectangular, dug into ground to a depth of around 80 cm to 1.20 m and covered with large limestone slabs.</p> <p>Sites: Most of the oases and other sites include Islamic tombs CS.2.68, CS.2.50, CS.2.51, CS.2.43, CS.3.5, CS.3.7, CS.4.12, CS.9.10, CS.2.62, CS.5.8, CS.1.4, CS.3.5, CS.3.10, CS.4.4, CS.5.9, CS.5.16, CS.5.17, CS.7.4, CS.9.8, CS.2.1, CS.2.15, CS.2.55, CS.2.57, CS.2.63</p>
Mahleya Tomb	<p>A tomb type that is dated to the Late Iron Age-Samad Period. It is small, elongated subterranean stone cists with rectangular burial chambers for single individual corpses. The roof stones usually being some 0.90 m below the surface. The chamber length ranges from 0.40 to 2.20 m and from 0.30 to 1m in width, and from 1m to 2.30 m in depth. The distance from the chamber floor to the uppermost course of stones varies between 1 m and 2 m. The main</p>

	<p>characteristics include end walls, roofs with capstones, and roof support stones. The walls of the burial chamber consist of four to six courses of wadi stones, with stones projecting from the uppermost course of the chamber walls to support the roofing capstones in order to decrease their weight on the chamber walls. The long axis of the chambers is oriented east–west, and the height varies from 1m to 2.30 m. The burial chamber is roofed with calcareous sandstone slabs or capstones with filling of earth.</p> <p>Sites: CS.2.52, CS.2.50, CS.2.51</p>
Possible Mahleya Tomb	<p>It is similar to the Mahleya tomb from its surface appearance. It looks like a low mound of piled stones with an oval or circular shape of one stone course ring with small piled stones in the middle. The stone ring is part of the piled stones in the middle. It is around 80 cm to 3 m in diameter for the circular and around 80 cm to 2 m long and around 60 cm to 1 m wide for the oval shaped tombs. It is built of brown, black and grey stones with an average size of around 35 cm. The tomb is of possible east–west orientation with a height of around 20 cm to 35 cm high. However, it is difficult to judge without excavation if they are certainly Mahleya-type tombs.</p> <p>Sites: CS.2.69, CS.2.43, CS.3.10, CS.7.2, CS.2.1, CS.2.9, CS.2.12, CS.2.14, CS.2.15, CS.2.18, CS.2.27, CS.2.55</p>
Pre-Islamic tomb	<p>Pre-Islamic tombs look like stone plied in mainly a circular or ovoid shape. The diameter for the circular tomb varies from 80 cm to 1 m and the length of the oval ranges from 5 m to 10 m and 4 m to 5 m wide. The tomb is either with or without a single course stone alignment or a wall built on the surface of brown and black wadi stones with some other stones piled in the middle. Their height ranges between 50 cm to 80 cm with an average stone size of around 30 cm. The tomb shape might belong to the subterranean type of tombs dating back from the Wadi Suq to Hellenistic Periods.</p> <p>Sites: CS.9.8, CS.2.50, CS.2.51, CS.2.43, CS.3.4, CS.2.62, CS.1.2, CS.1.4, CS.1.5, CS.1.8, CS.3.4, CS.3.5, CS.3.6, CS.3.7, CS.3.10, CS.4.3, CS.4.5, CS.7.2, CS.4.7, CS.5.18, CS.9.7, CS.9.8, CS.2.1, CS.2.3, CS.2.9, CS.2.10, CS.2.13, CS.2.28, CS.2.41, CS.2.42, CS.2.45, CS.2.46, CS.2.47, CS.2.48, CS.2.53, CS.2.55, CS.2.56, CS.2.57, CS.2.59</p>
Tawi Silaim Tomb	<p>It is similar to some extent to the Umm an-Nar tomb in that it is circular in shape, around 3 to 8 m in diameter with yellow roughly cut flat stones. It has around two to four concentric walls of different stone size ranging from 15 to 35 cm with inward sloping</p>

	<p>walls with or without cut stone kerbs. The entrance of the burial chamber is corbelled on both sides with corbelled inner walls forming an oversailing stone coursed roof. The tomb has a burial chamber in the centre that shows signs of paving with a diameter ranging from 1.50 to 2 m.</p> <p>Sites: CS.2.43.2</p>
Tombstone	<p>A stone placed over or at the head or foot of a tomb, mainly an Islamic tomb, indicates the gender of the dead: one stone over the head to the north indicates a male and two tombstones over or at the head to the north and with the feet to the south indicates a female. The tombstone is either of yellow limestone or brown/black gabbro stones.</p>
Umm an-Nar tomb	<p>This is built of yellow roughly cut limestone blocks of white ashlar masonry laid in courses above the external plinth with inward sloping walls, usually with cut stone kerbs of an average stone size of around 20–35 cm. The inner walls are corbelled inwards in order to form and support the stone tomb's roof. The entrance is formed by oversail courses forming a lancet-shape. The tomb is circular in shape with a diameter varying between 5 and 10 m with possible internal dividing or partition walls in the middle forming several separate chambers. The number of chambers varies from two in the case of a single entrance with a central wall to eight in the case of two entrances. Tomb heights range from 30 cm (in the case of badly disturbed tomb) to 3 m.</p> <p>Sites: CS.5.4, CS.5.9, CS.2.52, CS.2.43</p>

B.1.1.2- Mosques:

Possible Site/Feature Type	Description
Mosque	<p>A building or structure used by Muslims to practise their worship. See also open Mosque.</p> <p>Sites: CS.5.8, CS.1.5, CS.9.1, CS.9.5</p>
Open Mosque or Prayer Area (<i>Musala</i>)	<p>An open place that is defined by a one stone course alignment either from one side (west) or from all sides forming either a rectangular or square structure where Muslims practise their worship. Whatever the shape was, a <i>mihrab</i> in the middle of the western wall in the form of a semi circle of around 60–80 cm in width, and a possible entrance in the middle of the eastern wall with an entrance of around 60–80 cm in width. The stone alignment is around 20–30 cm thick and built of black and brown stones, often</p>

	<p>around 60 cm thick and filled in the middle with gravel.</p> <p>Sites: CS.2.50, CS.2.51, CS.2.62, CS.2.65</p>
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B.1.2- Domestic and Habitation Structures:

Possible Site/Feature Type	Description
Abandoned village	<p>A group of deserted houses and other related buildings. See also village</p> <p>Sites: CS.5.8: CS.9.5, CS.9.10</p>
Arch	<p>A structure that is built over a specific feature such as a door, a window or any other part of a building. Its main function is either defensive or decorative. It can be constructed using different materials such as stone and/or mudbrick, often with mortar or cement to protect and support its sides.</p> <p>Sites: CS.3.5</p>
<i>Barasti</i> house (' <i>Arēysh</i>)	<p>A wooden house or structure made by the Bedouin as a house to use during the summer or, sometimes, as a pen or stable for their camels and goats. It is built of perishable materials such as date palms. It is usually square or rectangular in shape.</p> <p>Sites: Examples were noticed in many areas such as Sinaw and Barzaman (CS.7.1)</p>
Basin (also cistern)	<p>A tank that is made to gather and store water to be used when needed for different purposes. The tank can be either covered or uncovered. The shape might be circular, rectangular or square. It is built from stones that are plastered using mortar or cement. The size of the tank varies. It can be built in houses or in date-palm gardens.</p> <p>Sites: CS.7.1, CS.9.5, CS.2.3</p>
Buried site	<p>There are human remains (.e.g. structure, artefacts or any other debris) that have over time been deposited or buried due to sedimentation and alluvium. Such sites can be found as a result of natural land movement or by human such as cultivation land clearance, digging wells, etc.</p> <p>Sites: CS.9.4</p>
Cairn	A structure that was deliberately built using stones to form a

	<p>specific type of structure in the form of piled stones.</p> <p>Sites: This type of structure has been noticed in several areas</p>
Cairn-field	An area that includes a group of piled stones or cairns that accumulated within one or more clusters adjacent to each other. See also cairn
Campsite	<p>A nomad or mobile pastoral group place or small sporadic site that was occupied for a short timespan and is small in size. It was probably used by a small population of nomadic nature. It includes a group of dwellings and structures built of different materials, often perishable- basically wood and cloth such as a tent, hut or <i>barasti</i> structures that vanish over time, but with stone structures or remains (e.g. platforms or foundations) as yet undiscovered. This type of site might be inhabited seasonally, for example, on the availability of water, pasture and arable lands during specific seasons. This type of site is likely to yield little evidence, mostly a few pottery sherds or lithics. In some cases, the site is only a scatter of artefacts.</p> <p>Sites: CS.2.11, CS.2.20, CS.2.29, CS.2.23, CS.2.56, CS.2.57, CS.2.65, CS.1.1, CS.2.1, CS.2.41, CS.2.43, CS.2.50, CS.2.51, CS.2.53, CS.2.55, CS.2.56, CS.2.61, CS.3.5, CS.5.1.2, CS.5.10, CS.7.2 and CS.9.5, CS.2.11, CS.2.23</p>
Fireplace (also hearth)	<p>A place where a fire is set for different purposes in which stones are used to define the fireplace.</p> <p>Sites: See horseshoe structure</p>
Horseshoe structure	<p>A small stone structure shaped like a horseshoe with an open part from any direction of around 60 cm to 2 m wide. The enclosed part within the structure has usually been cleared. The wall is a pile of stones either of a single or double course of stone alignment around 20–40 cm thick and from 60 cm to 1.20 m high. The wall has a filling of small stone and gravel with sometimes earth. The stones are brown, black or grey wadi stones and sometimes of yellow limestone. The function of this type of structure is not clear as no associated finds or signs of activity were found to identify its function. It might be a fireplace, furnace, animal enclosure. Only further excavation will give us insight into its function.</p> <p>Sites: CS.1.1, CS.1.3, CS.4.4, CS.4.6, CS.2.25, CS.2.27, CS.2.41, CS.2.42, CS.2.50, CS.2.52, CS.2.53, CS.2.55, CS.2.62, CS.2.64</p>
House	A building that could have been built of any type of material (e.g. stone, mudbrick, wood, cloth, etc.) and used by man for habitation or domestic purposes.

	<p>Sites: Several sites yielded this type of building, mainly within village or wadi villages</p>
Hut	<p>A small type of structure built of mixed materials, mainly wood but also employing other materials like mud and metal pieces. It sometimes includes a paved stone platform that serves as a floor.</p> <p>Sites: See also <i>barasti</i> house and possible platform (EARTHWORK)</p>
Isolated stone wall	<p>An isolated stone wall where no associated features were found. It is either with a one- or two-stone course alignment of around 20–80 cm thick and around 1.50–100 m long. Its function is unclear but it might be part of a badly disturbed structure or the remains of a cleared path made either by people or animals such as goats moving stones aside of their route or path.</p> <p>Sites: CS.2.50, CS.2.51, CS.2.43, CS.3.5, CS.3.2, CS.2.41</p>
Major site	<p>A large site that covers an area of over 10 hectares and consists of a group of structures of different shapes, types and sizes indicating considerable activity and occupation over one or more periods on the same site. It might include one or several types of human activity. Such a site might offer evidence of different types of stone structures such as houses, large cemeteries and walled-structures, etc. these structures are always located within and close to wadi villages along the wadi banks on their edges and slopes. The layout of the site is either organised and includes huge monumental buildings (towers) surrounded by other parts that are reserved either for tomb fields or for settlements or other activities as is the case with the Umm an-Nar major sites, or the layout is less organized and shows a very simple plan with large burial grounds and stone structures of different types that might have been built randomly as is the case with the major Late Iron Age sites.</p> <p>Sites: CS.1.1–CS.1.5, CS.2.15, CS.2.25, CS.2.41, CS.2.43, CS.2.50–CS.2.53, CS.2.55, CS.2.56, CS.2.59, CS.2.62, CS.2.64, CS.2.65, CS.2.67, CS.2.68, CS.2.69, CS.3.1, CS.3.5, CS.3.7, CS.3.8, CS.4.1, CS.4.12, CS.4.13, CS.5.1, CS.5.2, CS.5.8, CS.5.9, CS.7.1, CS.7.2, CS.9.1, CS.9.3, CS.9.5, CS.9.10,</p>
Minor site	<p>A small site that covers an area of less than 10 hectares and consists of a small group of structures of different shapes, types and sizes, and it is always, with few exceptions, located away from modern villages, and scattered along the Wadi banks. Sometimes, it only yields a small evidence of activity of a single or multi-periods. This evidence could be the remains of, for example, 'camp site' of possible seasonal nomadic or pastoralist inhabitations. See also nomads, campsite and nomad dwelling.</p>

	<p>Sites: CS.1.6–CS.1.9, CS.2.2, CS.2.1–CS.2.14, CS.2.16–CS.2.24, CS.2.26–CS.2.40, CS.2.42, CS.2.44–CS.2.49, CS.2.54, CS.2.57, CS.2.58, CS.2.60, CS.2.61, CS.2.63, CS.2.66, CS.3.2–CS.3.4, CS.3.6, CS.3.9, CS.3.10, CS.4.2–CS.4.11, CS.4.14–CS.4.19, CS.5.1.2, CS.5.10, CS.7.2, CS.2.11, CS.9.5, CS.5.3–CS.5.7, CS.5.10–CS.5.19, CS.7.3, CS.7.5, CS.9.2, CS.9.4, CS.9.6–CS.9.9, CS.9.11–CS.9.14</p>
Modern house	<p>A house that is currently occupied by local people and built of modern materials and has public facilities and services</p> <p>Sites: All the currently occupied village includes this type of structure: e.g. CS.3.1, CS.4.1, CS.1.5, CS.5.1, CS.7.1, CS.9.1</p>
Nomad dwelling	<p>A temporary small structure built of stone, cloth or wood (e.g. tent, hut, stone enclosure). See also campsite, <i>barasti</i> house, hut and minor site</p>
Oasis	<p>The term ‘oasis’ normally refers to a fertile area or spot in the middle of a desert that includes water resource(s) and trees, mainly date palms. The majority of linguistic as well as archaeological dictionaries, such as <i>The Concise Oxford Dictionary of Archaeology</i>, refer to the term ‘oasis’ as a localized fertile area within a desert (Darvill 2002: 293). The topography, pattern, layout and distribution of settlements within the desert are scattered and the distance between one oasis and the other could extend for several kilometres. The oasis (desert settlement) inhabitants used tents or wooden houses, which gave them their nomadism character. These inhabitants of the desert ‘oasis’, are nomads and herders. See also ‘Wadi village’.</p>
Old mudbrick building	<p>A building that is built of mudbrick with or without stone foundations, and usually built within or close to a settlement. It is used for different but mainly domestic purposes. It either stands alone or is part of a larger building where a group of buildings is clustered (see also quarter).</p> <p>Sites: CS.9.2.1, CS.9.10, CS.2.62, CS.5.8, CS.9.5, CS.9.10, CS.1.5, CS.3.1, CS.3.5, CS.4.1, CS.5.1, CS.7.1, CS.9.1, CS.9.9, CS.9.12, CS.2.35, CS.2.55</p>
Quarter (<i>Hārah</i>)	<p>A well-planned group of stone-mudbrick buildings or houses forming a headquarters that is usually enclosed by a defensive outer wall and gates and sometimes corner towers. Buildings are of mudbrick with sometimes stone foundations to a height of around 60 cm to 1 m. The buildings or houses consist of one or more, to a maximum of three, stories of several rooms and units according to the house size. There can be bedrooms, kitchens, toilets, storage rooms and courtyards. There are lanes between the houses of around 1.50 m to 4 m wide.</p>

	Sites: CS.4.1.1, CS.1.5, CS.7.1, CS.2.55
Rock shelter	A natural opening in rock that is located under a natural projection at the base of a cliff or outcrop. It will have been exploited over time by man as a protecting shelter either for himself or for his animals. It is sometimes supported by a stone or wooden wall facing the opened part to form an enclosure. Sites: CS.9.12
Ruined structure	A structure that has collapsed or been damaged over time in which parts of its main structure or materials remain. Sites: CS.2.68, CS.2.69, CS.9.2.1, CS.2.51, CS.2.43, CS.3.5, CS.3.7, CS.9.10, CS.5.8, CS.4.1, CS.9.1, CS.9.5, CS.9.9, CS.9.12
Ruins (also remains)	Any residue or debris that remains from a collapsed or damaged building or structure. Sites: CS.2.68, CS.2.69, CS.9.2.1, CS.2.51, CS.2.43, CS.3.5, CS.3.7, CS.9.6, CS.9.10, CS.5.8, CS.9.1, CS.9.9
Sedentary site	A permanently occupied place that includes a group of structures or buildings used for habitation and other domestic activities. The size of the site may vary considerably. It is often associated with a settled population who usually practise agriculture, pottery production, herding or other activities such as copper smelting processes. See village, wadi village, major sites
Settlement	A group of houses and other related buildings clustered over a small area but smaller in size than a village. They are built of different building materials, mainly stone, and of different shapes and sizes. Sites: CS.2.11, CS.2.50, CS.2.51, CS.2.43, CS.2.20, CS.2.29, CS.2.23, CS.2.56, CS.2.57, CS.2.65, CS.3.5, CS.3.7, CS.4.12, CS.2.53
Sloping structures	Stone structures that on a wadi's edges and slopes. They vary in size and shape. The structure may stand alone or be part of a cluster. They are built on the edges and extend down the slopes until the end of a wadi terrace. They look like 'sloped structures', making identification problematic as to whether they are part of a house, a field, a retaining wall or some other possible function. The walls of the structures are double stone courses of around 60–80 cm thick, and filled in the middle with gravel. Sites: CS.2.50, CS.2.51
Stone structure	A circular, square or rectangular stone structure with double stone walls of around 40–80 cm thick and filled in the middle with gravel

	<p>and sometimes earth. Sometimes the structure's walls are only one stone course of around 20–30 cm thick. The stones are black and brown with an average size of 30 cm. Sometimes they are grey and yellow. The structure is either an individual unit or sub-divided into several units. The size varies from one structure to another with a height of around 30–1.20 m. The inner part of the structure is often cleared from stones.</p> <p>Sites: CS.2.11, CS.2.50, CS.2.51, CS.2.43, CS.2.20, CS.2.29, CS.2.23, CS.2.56, CS.2.57, CS.2.65, CS.3.5, CS.3.7, CS.4.2, CS.4.12, CS.9.6, CS.9.10, CS.2.53, CS.2.62, CS.5.8, CS.1.2, CS.1.4, CS.1.5, CS.3.1, CS.3.3, CS.3.5, CS.4.1, CS.4.4, CS.4.5, CS.4.7, CS.4.10, CS.4.11, CS.5.2.5, CS.5.15, CS.5.16, CS.7.1, CS.7.3, CS.7.4, CS.9.1, CS.2.13, CS.2.15, CS.2.17, CS.2.19, CS.2.22, CS.2.24, CS.2.27, CS.2.28, CS.2.38, CS.2.40, CS.2.41, CS.2.42, CS.2.44, CS.2.48, CS.2.49, CS.2.52, CS.2.55, CS.2.60, CS.2.63, CS.2.64,</p>
Stone wall foundation	<p>The stone remains of what is used to be a standing wall whether is completely or partly stone-built wall.</p> <p>Sites: CS.2.52, CS.2.69, CS.2.50, CS.2.51, CS.2.43, CS.2.20, CS.2.56, CS.2.57, CS.2.65, CS.3.5, CS.3.7, CS.4.12, CS.9.6, CS.9.10, CS.5.8, CS.3.2, CS.3.5, CS.4.5, CS.4.7, CS.4.8, CS.5.9, CS.5.10, CS.5.16, CS.7.1, CS.9.1, CS.9.5, CS.9.12, CS.2.15, CS.2.25, CS.2.27, CS.2.38, CS.2.40, CS.2.44, CS.2.48, CS.2.50, CS.2.55, CS.2.61, CS.2.62, CS.2.64, CS.2.67</p>
Umm an-Nar complex (village)	<p>An organised and well-planned settlement that consists of a tower building, tomb-field, houses and other stone structures of different shapes and sizes. Structures may be either individual or in groups with a large quantity of associated surface finds, mainly pottery sherds.</p> <p>Sites: CS.2.52</p>
Umm an-Nar house/structure	<p>A stone foundation of a house or structure that varies in size, shape (square, rectangular, circular, individual, or unit with more than a structure), and is often associated with Umm an-Nar finds, mainly pottery sherds. Wall sizes vary from 35 cm to 80 cm thick with or without gravel filling in between.</p> <p>Sites: CS.2.52, CS.2.68, CS.2.69</p>
Village	<p>This can also be called a 'Wadi village' that consists of a group of houses and other related buildings such as public buildings, workshops, mosques/temples, agricultural land and installations, defensive buildings and towers, etc.</p>

	Sites: CS.1.5, CS.3.1, CS.4.1, CS.5.1, CS.7.1, CS.9.1
Wadi village	<p>A village or habitation site located along and near the foothills, wadi banks and with gravel terraces. There will be water resources such as the <i>falaj</i> and date palm groves. A 'wadi village' is different than the term 'oasis' (see oasis), which is used nowadays by many archaeologists to refer to 'wadi village. The topography, pattern, layout and distribution of settlements along the wadi are different from those within the desert. Wadi villages can be found along wadi banks and are adjacent to each other or separated by just a few hundred meters. The wadi village inhabitants used to use different types of building materials such as stones, mudbrick and wood in building their structures, while the inhabitants in the desert 'oases' used the tents or wooden houses which gave them their nomadism character. The inhabitants of the 'wadi villages' are settled-farmers and goat-herders who also practised activities related, for instance, to mining or pottery, while those of the desert 'oases' were nomads and herders.</p> <p>Sites: CS.2.11, CS.2.50, CS.2.51, CS.1.5, CS.4.1, CS.3.1, CS.5.1, CS.7.1, CS.9.1</p>
Wall	<p>A standing structure of different heights and thicknesses either isolated or part of a building. It is built of different material such as stone, mudbrick, wood, etc, and consists of several courses based on the required height.</p> <p>Sites: CS.9.12</p>

B.1.3- Defensive and Fortified Structures:

Possible Site/Feature Type	Description
Arch	See the same term in domestic and habitation structures
Citadel <i>Hisn</i>	<p>A fortress used as a defensive, administrative and habitation place. It includes fortifications such as towers, offices and dwellings. Historic Hisn in Oman has always served as a house and administrative point for the area ruler or Imam.</p> <p>Sites: Hisn al-Khabib in Samad</p>
Fort	A walled or fortified large building built as a defensive position. It is used in case of a war or attack. It includes a group of other smaller buildings and a group of fortified structures with towers, thick walls, a moat, gun and canon platforms and openings, etc. The position of the fort is often on high ground such as on hills or

	<p>outcrops. Some though, can also be found on low elevation and flat ground.</p> <p>Sites: CS.9.1</p>
Fortification	<p>Any work, building or structure that bears a defensive feature such as a fortified or walled house, walled structure, etc.</p> <p>Sites: CS.4.4, CS.3.5, CS.4.12, CS.2.53, CS.9.1, CS.2.58</p>
Fortified settlement	<p>A group of houses and other related buildings clustered over a small area and are often, but not always, built on the top of hills or rocky outcrops because of their innate defensive nature. They are built of different building materials, mainly stone, and are of different shapes and sizes. They are often built of yellow, brown or black stones. Sometimes, there are corner towers on the edges of the hill or outcrop which serve as observation positions. This type of site also includes one stone wall extending along the edge of the rocky hill, which serves as a defensive wall.</p> <p>Sites: CS.4.4 is CS.3.5, CS.4.12, CS.2.53, CS.3.5, CS.4.1.2, CS.2.40, CS.2.41</p>
Observation tower	<p>A defensive stone structure that is often located on the hills' edges where it serves as a place to observe and protect a settlement area. The structure generally looks like a cairn or a pile of stones. Diameters vary between 2–5 m and heights from 80 cm to 2 m. It is an open-roofed structure with a circular pit in the middle of around 1–1.20 m in diameter and wall of around 60–80 cm thick. It is built of black, yellowish-brown, sometimes grey, crude stones. This type of structure consists sometimes of small holes in the wall, which can be used for observation and as a gun platform. Sometimes the structure is very simple in which one stone course alignment is curved or looks like a half circle with an opening.</p> <p>Sites: CS.4.4 , CS.9.1, CS.2.15, CS.2.16, CS.2.22, CS.2.34, CS.2.42, CS.2.53</p>
Quarter (<i>Harah</i>)	See the same term in domestic and habitation structures
Sur (fortified wall)	<p>A walled small quarter or a group of buildings that are fortified by outer wall and a single or more corner towers. It is often occupied by one single tribe or family and in many cases it is assigned to the name of that family.</p> <p>Sites: CS.9.5</p>
Tower	A structure that is built of stone, mudbrick or both. It consists of different shapes which may be round, square, rectangular.

	<p>cylindrical or polygonal. It is mainly used for defensive purposes, though other purposes might be possible, for example, as a territory landmark. It can be either isolated or part of a fortified building.</p> <p>Sites: CS.3.1, CS.4.1, CS.5.1, CS.7.1, CS.9.1</p>
Umm an-Nar tower/building	<p>A large, oval, circular, square, semi-square, rectangular, or semi-rectangular building often built on or against a natural rock feature, such as a low outcrop, or on a man-made mound. Its perimeter consists of large, roughly cut boulders which may form either one or more rings. Sometimes the square or rectangular building has rounded corners. The size of the building varies with an average diameter of 20–40 m for the circular, and 20–30 m by 20–30 m for the square, and 20–30 m by 30–40 m for the rectangular. The function of the building is often defensive; however, civic, social or religious functions are possible. It includes internal divided walls forming several inner rooms. Sometimes the outer walls of the building are depicted with pecked, engraved or in relief rock art drawings.</p> <p>Sites: CS.5.2.1, CS.5.2.2, CS.5.2.3, CS.5.7, CS.2.52, CS.2.69</p>

B.1.4- Industrial and Agricultural Structures:

Possible Site/Feature Type	Description
Agricultural building	<p>A building that is built of stone, mudbrick or wood, or of mixed material and can be found within the agricultural field in which it is used for agricultural purposes such as stores. The building can be square, rectangular or circular.</p> <p>Sites: CS.9.6, CS.9.10, CS.2.62, CS.5.8, CS.3.5, CS.7.1, CS.9.5</p>
Agricultural installation	<p>Any building, structure and technique (e.g. irrigation system) used or employed for agricultural purposes. See also EARTHWORK for <i>falaj</i> and irrigation channels.</p> <p>Sites: CS.7.1, CS.9.5</p>
Basin (also cistern)	See the same term in domestic and habitation structures
Copper smelting site	<p>An area that is mainly used as a place to smelt and process copper ore. It includes slag heaps, buildings and structures associated with the smelting process. It might also include houses for the coppersmiths, water resources (e.g. well) as well as a nearby copper source.</p>

	Sites: CS.3.7
Fireplace/hearth	See the same term in domestic and habitation structures
Old mudbrick building	<p>A building that is built of mudbrick with or without stone foundations, and usually built within or close to a settlement. It is used for different functions, mainly for domestic purposes. It is either a stand-alone or part of a larger building where a group of buildings are clustered (see also quarter).</p> <p>Sites: CS.9.2.1, CS.9.10, CS.2.62, CS.5.8, CS.9.5, CS.9.10, CS.1.5, CS.3.1, CS.3.5, CS.4.1, CS.5.1, CS.7.1, CS.9.1, CS.9.9, CS.9.12, CS.2.35, CS.2.55</p>
Retaining wall	<p>A wall, normally stone, that is constructed to maintain and hold a depository or pile of earth, gravel etc.</p> <p>Sites: CS.2.50, CS.2.51, CS.5.8, CS.4.1, CS.9.5, CS.2.16</p>

B.1.5- Animal Structures:

Possible Site/Feature Type	Description
Animal basin (also cistern)	<p>An open tank that is made to gather and store water for the purpose of animal drinking. The shape of this tank might be circular, rectangular or square and is built from stones that are plastered using mortar or cement. The size of the tank varies but its height is low in order to facilitate drinking.</p> <p>Sites: CS.3.7, CS.7.1</p>
Animal pen/enclosure	<p>An enclosed structure to retain animals and protect them, and of different shapes, types and sizes. Different building materials are used in constructing this type of structure such as stone, wood, fabric and mudbrick. Sometimes natural features are made use of in the construction of a structure such as trees, rocks and caves or rock-shelters.</p> <p>Sites: CS.2.54, CS.2.43, CS.2.14, CS.2.15, CS.2.27</p>
Animal trap	<p>A circular, rectangular, square or box and domed-like structure built of a pile of black and brown stones of different sizes based on its shape and a height range between 30 cm and 60 cm. It is generally small with a small opening from any direction around 15–40 cm wide and 15–45 cm high. It sometime has what looks like an inner tunnel with sometimes small yellow slabs, which are often used as roof stones for the opening. This type of structure might be used as</p>

	<p>an animal trap.</p> <p>Sites: CS.2.8, CS.2.27, CS.2.41, CS.2.53,</p>
<i>Barasti</i> house (<i>'Arēysh</i>)	See the same term in domestic and habitation structures
Chicken box/house	<p>A small stone square, rectangular or circular structure built to keep chickens with a small opening of around 15–25 cm wide and 20–30 cm high.</p> <p>Sites: CS.2.49</p>
Rock shelter	See the same term in domestic and habitation structures

B.2- EARTHWORK:

Possible Site/Feature Type	Description
A pile of stones (also cairn)	<p>A group of piled stones around 30 cm to 1.50 m in diameter, and 10 cm to 90 cm high. The pile is made of brown, black and grey stones and sometimes with yellow limestone on black gravel wadi terraces, rocky hills and outcrops. They are clustered in groups that are sometimes difficult to count. These are definitely man-made but their function is not clear. They could be the result of cleared areas or roads. The practice of piling stones can be noticed even nowadays where people collect them from the wadi gravel terraces and pile them in groups and then leave them. At certain times they use them in building their houses or any other kinds of structure such as for demarcating fields. This also explains the practice of removing the stones of the old structures or tombs. In addition, they could be the remains of some ancient structure or building.</p> <p>Sites: CS.2.68, CS.2.69, CS.2.52, CS.9.8, CS.2.50, CS.2.51, CS.2.43, CS.3.4, CS.3.5, CS.4.2, CS.4.12, CS.9.6, CS.9.10, CS.2.53, CS.2.62, CS.5.8, CS.1.2, CS.1.7, CS.1.8, CS.1.9, CS.3.2, CS.3.4, CS.4.7, CS.4.11, CS.5.1, CS.5.15, CS.5.16, CS.7.2, CS.7.3, CS.7.4, CS.7.5, CS.9.7, CS.9.8, CS.9.11, CS.9.12, CS.2.6, CS.2.8, CS.2.13, CS.2.15, CS.2.16, CS.2.17, CS.2.18, CS.2.19, CS.2.25, CS.2.26, CS.2.27, CS.2.28, CS.2.29, CS.2.30, CS.2.31, CS.2.41, CS.2.42, CS.2.44, CS.2.55, CS.2.56, CS.2.59, CS.2.60, CS.2.63, CS.2.64, CS.2.65, CS.2.67</p>
Abandoned <i>falaj</i>	<p>A dry and unused <i>falaj</i>. See also <i>falaj</i></p> <p>Sites: CS.9.10, CS.5.8, CS.7.1, CS.9.5</p>
Abandoned <i>falaj</i>	An inactive artificial <i>falaj</i> channel that is abandoned. See also <i>falaj</i>

channel	Sites: CS.9.6, CS.9.10, CS.5.8, CS.3.1, CS.7.1, CS.9.5, CS.2.61.
Agricultural field	<p>A piece of land that is used for plantation and often walled or fenced. It may include an irrigation system or some other agricultural installation. It is normally built on wadi gravel terraces or edges where water and fertile soils are available, and nearby settlements.</p> <p>Sites: CS.1.5, CS.9.1</p>
Artificial mound	<p>A low mound that is associated with possible stone structure remains indicating that the mound itself might be the debris of a collapsed building.</p> <p>Sites: CS.5.1.2.1, CS.2.51, CS.2.43, CS.3.7, CS.5.8</p>
Buried site	See the same term in domestic and habitation structures
Clearance mound	<p>Piled earth that is extracted from clearing land in order to find a new and fertile soil for the cultivation over time and/or from digging the ground to find water (wells). The clearance mound may be at the field's edges or the surrounding area. This feature has different names in different parts of Oman. To give an example, in the Ja'alān area, the area where the clearance mounds are piled is called 'Manjal' (منجل) or 'Manyal' (منيل), and followed by the name of its owner (e.g. Manjal/Manyal Nasser). It becomes the property of the owner's family after his death. The mound itself is called 'Kadas' (كدس) (plural 'Kadūs' [كدوس]) or 'Dak' (دك) (plural 'Dakūk' [دكوك]). In Bidyah, the mound is called 'Qarhah' (قرحة)</p> <p>Sites: CS.5.1.2.1; CS.5.1.2.2, CS.3.5, CS.4.12, CS.9.6, CS.5.8, CS.1.5, CS.3.1, CS.4.1, CS.5.1.2.4, CS.5.1, CS.7.1, CS.9.1, CS.9.2.2, CS.9.5, CS.9.9, CS.9.12</p>
Cleared depression	<p>A cleared depression or pit that is often found close fields with its clearance earth and gravel piled around its edges. It is around 80 cm deep (maximum). Its function is unclear but could be related to land movement activities around the fields.</p> <p>Sites: CS.2.50, CS.2.51, CS.2.52, CS.2.62</p>
Cleared stone alignment	<p>A cleared area that is enclosed by a one-course stone alignment of different size and shape (circular, rectangular, square). Its function is unclear.</p> <p>Sites: CS.2.50, CS.2.51, CS.2.43, CS.2.14, CS.2.15, CS.2.21, CS.2.27, CS.2.41, CS.2.42, CS.2.53, CS.2.55, CS.2.56, CS.2.62, CS.2.63, CS.2.64</p>

Cut-section	<p>An artificial or natural dug or cut layer or section of different depth.</p> <p>Sites: CS.5.1.2.2, CS.9.4, CS.1.5, CS.3.1, CS.9.1, CS.2.7, CS.2.53,</p>
Dam	<p>A barrier made of stone mixed with earth, gravel or any other material. Sometimes it is plastered with mortar or cement. It is always built across a watercourse to divert and transfer water in a specific direction. It serves as a protection for sites against flash-floods and creates a reservoir.</p> <p>Sites: CS.5.8</p>
Date-palm grove/garden	<p>Defined land within or near a settlement, either open or fenced, which is used to grow date-palm trees. The density of the grove depends on the size of the settlement's population. These date-palms are always associated with settlements as they are part of the inhabitants' subsistence economy. The garden has different names in different parts of Oman. It is called <i>mazra'ah</i> (مزرعه), <i>māl</i> (مال), 'ābyah (عابيه), <i>nakhal</i> (نخل) or <i>dhahyah</i> (ضاحيه)</p> <p>Sites: CS.9.2.2, CS.2.43, CS.1.5, CS.1.6, CS.3.1, CS.4.1, CS.5.1, CS.7.1, CS.9.1, CS.9.5, CS.2.2, CS.2.44, CS.2.52</p>
Ditch (<i>Khandaq</i>)	<p>A long trench dug into the ground and varied in size; normally deep (over 1m) and either narrow or wide based on its main function. It is used to carry water on certain occasions but might remain empty for the rest of the year</p> <p>Sites: CS.7.1</p>
Dry <i>Thuqbah</i>	<p>A hole dug into ground that has been dried after the <i>falaj</i> was inactive. See also <i>Thuqbah</i></p> <p>Sites: CS.9.4, CS.9.6, CS.3.1, CS.3.7, CS.5.1, CS.7.1, CS.9.5</p>
Dump area	<p>A spot or place where human waste or refuse has accumulated or been deposited. This might include any type of waste or refuse (e.g. domestic, industrial, etc.)</p> <p>Sites: CS.9.2.1</p>
<i>Falaj</i>	<p>An artificial channel dug into the ground, or on the surface, and is either open or covered. It is used to gather underground water, spring water or surface water which is carried over long distances naturally through the <i>falaj</i> channel by gravity alone. The water carried by the channel is used mainly for land irrigation and domestic purposes. Each <i>falaj</i> has a name. There are also agreed rules on its use and maintenance. The <i>falaj</i> system was introduced</p>

	<p>during the first millennium BC, or earlier (see Chapter Eight 8.3).</p> <p>Sites: CS.1.5, CS.3.1, CS.4.1, CS.7.1, CS.9.1</p>
Graded road	A paved way for pedestrian and vehicular use.
Irrigation channel	<p>An artificial watercourse for carrying and distributing water within agricultural fields in order to irrigate crops and plants.</p> <p>Sites: CS.9.6, CS.9.10, CS.5.8, CS.3.1, CS.4.1, CS.7.1, CS.9.1, CS.2.3, CS.2.61</p>
Mound	<p>Piled earth and/or stones forming a low-levelled embankment</p> <p>Sites: CS.2.69, CS.2.51</p>
Old/abandoned agricultural field	<p>The remains of old cultivated area/land which was abandoned either recently or long ago. It is normally built on wadi gravel terraces or edges where water resources and fertile soils are available. The field often consists of several walls with other sub-division walls that form different smaller sub-divided fields. The stone walls range in size from 60 cm to 80 cm thick and are filled in the middle with gravel and earth. Some fields are made of only a pile of earth and gravel. Sometimes, there are stone-mudbrick squares and rectangular structures built along the outer walls, and sometimes within the fields, which may have had agricultural purposes.</p> <p>Sites: CS.2.50, CS.2.51, CS.2.43, CS.3.5, CS.4.12, CS.9.6, CS.9.10, CS.2.62, CS.5.8, CS.1.5, CS.1.6, CS.3.1, CS.3.5, CS.4.1, CS.4.8, CS.7.1, CS.9.5, CS.2.24, CS.2.32, CS.2.35, CS.2.52, CS.2.55, CS.2.63,</p>
Pathway	<p>A track or trodden way paved and cleared for walking</p> <p>Sites: CS.2.41</p>
PCAs	<p>A group of areas selected and divided within a village or wadi village's for pottery collection sampling in order to examine the settlement history over time.</p> <p>Sites: CS.1.5.1–CS.1.5.5, CS.3.1.1–CS.3.1.6, CS.4.1.1–CS.4.1.6, CS.5.1.1–CS.5.1.6, CS.7.1.1–CS.7.1.5, CS.9.1.1–CS.9.1.8</p>
Possible platform	<p>Paved or low-piled stones of different shapes and sizes that might be a platform floor of a structure, possibly a perishable one. The platform may be oval, circular, square, rectangular, and sometimes without any specific shape. The platform is built of small brown, black or grey stones.</p>

	Sites: CS.2.51, CS.5.8, CS.1.2, CS.5.1, CS.5.10, CS.5.15, CS.5.16, CS.7.3, CS.7.4, CS.2.44, CS.2.46, CS.2.52
Road	A paved or asphalted route used either on foot or any means of transportation such as cars, bicycles, motorcycles, etc.
Slag deposition/heap	A spot or place where metal waste, mainly copper, from the smelting process is accumulated and dumped. Sites: CS.3.7, CS.3.1, CS.3.8, CS.2.2
Stone alignment	One or more rows of stones that are set in lines or placed parallel to each other, either in a continuous or discontinuous way. It is often looks like a row or one course of stones forming different shapes. The structure's function is unclear but it possibly serves as a boundary marker. Sites: CS.9.12, CS.2.12, CS.2.41, CS.2.42, CS.2.48, CS.2.51, CS.2.60,
Stone scatter	A group of scattered stones of no specific or regular shape but which look man-made. These could be the remains of possible removed or disturbed structures or the remains of stone movement or quarrying activities. Sites: CS.5.2.4, CS.5.2.5, CS.1.2, CS.1.7, CS.1.8, CS.3.1, CS.3.2, CS.3.3, CS.4.5, CS.4.11, CS.7.4, CS.7.5 , CS.2.3, CS.2.56, CS.2.62, CS.2.63, CS.2.64
<i>Thuqbah</i>	A group of holes or well cut-section dug into ground on one line over specific intervals where the <i>falaj</i> underground water runs. They are dug in order to help in checking and/or cleaning the <i>falaj</i> when necessary. See also Dry <i>Thuqbah</i> .
Unidentified feature	Any type of feature that cannot be certainly defined or attributed to any defined type of site or structure.
Water channel	An artificial watercourse for carrying and distributing water. Sites: CS.9.10, CS.5.8, CS.3.1, CS.7.1, CS.9.1, CS.2.3, CS.2.61
Well	A deep pit or hole dug into ground to reach the underground water that can be used for irrigation or other daily life purposes. Sites: CS.3.7, CS.3.7, CS.4.1, CS.7.1, CS.9.1, CS.9.5, CS.2.3

B.3- ARTEFACT:

Possible Site/Feature Type	Description
Artefact scatter	An area where a concentration of either high or low density artefacts was located on the surface during the survey in both large and small locations. This does not include those found within a specific archaeological context, but indicate human activity.
Chert/lithic scatter	An area where a concentration of cherts or lithics was located on the surface during the survey. This does not include those found within a specific archaeological context. Sites: CS.1.1
Pottery scatter	An area where a concentration of pottery sherds was located on the surface during the survey either of high or low density on large or small areas. This does not include those found within a specific archaeological context. Sites: CS.5.2, CS.5.2.4, CS.5.2.5, CS.2.50, CS.2.51, CS.2.2
Shell scatter	An area where a concentration of shells was located on the surface during the survey. This does not include those found within a specific archaeological context. Sites: CS.2.63

APPENDIX C:
POTTERY CLASSIFICATION

APPENDIX C: POTTERY CLASSIFICATION

This appendix includes a description of the pottery classification methodology as well as the different types of pottery classes defined from all the pottery collected during the survey and dated from the Bronze Age until recent times. It must always be kept in mind that this classification is preliminary and incomplete. Defining the Wadi Andam Survey pottery is based on the researcher's background in Omani pottery and on published materials from the well-stratified excavated sites within the peninsula. Furthermore, it is based on showing pottery to specialists who kindly identified several types of pottery. Among those are J. Schreiber who identified several pottery sherds of the Umm an-Nar and Early and Late Iron Age; C. Velde for the Wadi Suq; P. Magee, J. Häser and A. Benoist for the Early and Late Iron Age; and D. Kennet for the Islamic pottery. Furthermore, it is important to stress on the fact that this thesis has specific aims, space and time for completion. Its aims are set out and discussed in the introductory chapter as well as the following chapters. It must be remembered that dealing with pottery as well as its definition and classes in great detail is a huge work. It is worthy of a PhD thesis in its own right. Thus, this appendix is only an attempt to provide a brief guide for the reader about the presented and discussed pottery throughout the thesis in order to be able to follow up the discussion.

The terminology used in identifying the pottery classes is based on terms adopted by the author of this thesis, which were mainly based on fabrics and surface treatment of the sherds. The problem with identifying pottery classes is that there is no one unified classification. It is a matter of judgment. Some of the classes, mainly those of the Islamic periods, are well-known, defined and described in the literature. These include, for instance, BAHLA (Bahla Ware), JULFAR (Julfar Ware), CBW (Chinese Blue-and-White), Celadon, etc. The majority of the classes defined here are based on the author's classification and description. Parallels from the literature are ascribed to each class. Whenever possible, these parallels are based mainly on those finds from well-stratified excavated sites but others from surveys of well-defined sites that show clear and coherent remains of one unique period were also used.

This appendix includes a description of all the identified pottery classes and their characteristics. A glossary of the used terms in describing pottery and its characteristics is provided at the end of the appendix.

C.1– CLASSES:

A description of the pottery collection and analysis process was stated in Chapter Four (Section One 4.1.2.1.5). This appendix will focus on describing the different classes of this pottery. A total of 74 pottery classes, based on 19,240 surface collected pottery sherds, were identified and will be described. Each of these classes was given a unique abbreviation or code for speed and ease of identification. These codes are written in capital letters within the text (e.g. UNUMS, GCWS, LFEIA, etc.). In addition, there are other sherds were not possible to be assigned to a specific period as their fabrics and other characteristics could sometimes be ascribed to more than one period. These include, for instance, Late Bronze Age Class (L.B.A), which could be assigned to either Wadi Suq or the Early Iron Age. These were thus assigned to a broader chronological period. Moreover, some Islamic sherds were impossible to assign to a definite period. This is the case with the “Middle Islamic to Late Islamic sherds” and “Late Islamic to Recent sherds” as they have characteristics common to both periods.

To understand the different classes defined here, the following is a description of them. It includes the definition of the class and its code, the class name, period, origin, total number of sherds, the sites which yielded sherds of this class, parallels from the literature and figures that illustrate the particular class. The archaeological sites that yielded sherds from each class are indicated only by their numbers in order to avoid flooding the main text-body with a huge list of names. The archaeological names can be found in the Sites' Gazetteer in Appendix A as well as in the Site's Transliteration list in Appendix F. It is important to indicate here that many of the defined wares presented in this appendix have mainly similar characteristics with only few minor differences. Therefore, it is preferred to assign each ware to its different class in order to show its differences. It should, however, be stated that parallels from the literature are given to each class in which classes can sometimes share the same parallels. The classes are presented chronologically, starting from the oldest, namely the Umm an-Nar period.

C.1.1– UMM AN-NAR PERIOD:

Class Code: UMFGW

Class Name: Umm an-Nar Fine Gray Ware

Period: U.Nar

Description: A fine and hard, well-fired ware with smooth fracture, and light gray (Munsell 5YR, 7/1) surfaces and gray (Munsell 5YR, 5/1) core. Inclusions are gray, rounded (up to 1mm; 2%) and void, rounded to sub-rectangular (1mm–2mm; 1%) traces of possible vegetable/chaff prints. Walls thickness ranges between 3mm and 1cm. This ware is usually plain with very few exceptions of decorated incised sherds and projected bands and traces of wheel making/turning. This type of ware is mainly used for funerary purposes but also found in settlements.

Origin: South and south–eastern Iran; east and south–eastern Arabia

Sites: CS.5.2.1= 4 sherds (P01274– P01277); CS.5.1.2.1= 1 sherd (P02326); CS.5.1.2= 2 sherds (P02991– P02992); CS.4.1.3= 1 sherd (P04797); CS.5.9= 6 sherds (P05293– P05295 & P05297–P05899); CS.5.2.4= 1 sherd (P06303); CS.5.2.2= 5 sherds (P07208– P07212)

Total sherds: 20 sherds

Figures: 122 (C); 123 (C);

Parallels: Tombs at Hili: Tomb 1059 (Pl.70, figs. X, Y; Pl.79; Pl.80); Tomb B (Pl.72, figs. D, H, P, O; Pl.74, figs. F, M; Pl.81, figs. A–L; Pl.82; Pl.83; Pl.84; Pl.90, figs. D, E, K, L, N–P; Pl.91, figs. A–J, M, N) & Tomb–H (Pl.72, fig. G) as well as from the settlement at Umm an-Nar Island (al-Tikriti 1981: 153–158: Pl.110, fig. A; Pl.122, figs. A–D); Frifelt 1991: Figs. 83–85: 49 and (Frifelt 1995: fig. 235, pp: 173; also pp: 81–88, 100–108); Tomb A at Hili North (Cleuziou & Vogt 1985: figs. 7: 263, 8: 268).

Class Code: UMPGW

Class Name: Umm an-Nar Painted Gray Ware

Period: U.Nar

Description: Black–on–Gray fine painted ware with smooth fracture and hard firing. The surface is light reddish gray (Munsell 10R, 5/1) and the core is red (Munsell 2.5YR, 5/6) and/or dark reddish gray (Munsell 2.5YR, 5/1). Inclusions are white to gray, rounded of less than 1mm size and covers 1% of the sherd. Walls thickness is c 2–6 mm. This ware is wheel-made.

Origin: South–east Arabia; Iran;

Sites: CS.5.9= 3 sherds (P00390–P00391 & P05896); CS.2.68= 3 sherds (P00469 & P06541–P06542); CS.2.52.4= 2 sherds (P00679–P00680); CS.5.1.2= 1 sherd (P02990)

Total sherds: 9 sherds

Figures: 111 (B,C,F); 112 (B); 121 (E,F);

Plates: 382 (A–B); 387 (A–C)

Parallels: Hili 8 settlement (Cleuziou 1978/9: fig.30, No.6, pp: 58); Tombs at Hili (al-Tikriti 1981: 153–156): Tomb 1059 (Pl.78, figs. A–B, E; Pl.79, figs. B, G, J, N; Pl.80, figs. A–C, E–H); Tomb B (Pl.81, figs. A–F–H, J–L; Pl.82, figs. A–H, J–Q; Pl.83, figs. A–G, J–K, P–X; Pl.84, figs. C, E, G, H, K; Pls.155–156) & Tomb–H (Pl.72, fig. G)

The settlement and tombs at Umm an-Nar Island: (al-Tikriti 1981: 165 & 175–180: Pl.135, figs. C); Frifelt 1991: Figs. 76–82: 46–48; 120–121: 62; 142: 71; 176–178: 82 and (Frifelt 1995: figs. 92–93, pp: 64; also pp: 81–88, 100–108); Frifelt 1979b: figs. 4–5: 46; Tomb A, Hili North (Vogt 1985b: Pls. 25–26); Tomb B at Ajman (al-Tikriti 1989b: Pls. 43, 55A); al-Sufouh (Benton 1996: figs. 122–124); Tomb A at Hili North (Cleuziou & Vogt 1985: figs. 7: 263, 8: 268)

Class Code: UMFRPW

Class Name: Umm an-Nar Fine Red Painted Ware

Period: U.Nar

Description: Fine, wheel-made and well-fired red ware with conchoidal fracture. The surface is light red (Munsell 10R, 6/8) to red (Munsell 10R, 4/8) and the core is reddish yellow (Munsell 5YR, 7/6). The ware includes gray to brown rounded inclusions of less than 1mm size and covers 1% of the sherd. The whole exterior body is coated with a red slip and bands with a black painting; however, some sherds are plain and undecorated. The inner surface is reddish yellow, often with black painted bands around and under the rim and sometimes red wash on and/or inside the rim. Walls thickness is c.1–8 mm. This ware is wheel made.

Origin: Local?

Sites: CS.2.69.2= 2 sherds (P00051–P00052); CS.1.5.2= 1 sherd (P00253); CS.2.52.4= 7 sherds (P00678, P02872– P02874, P02878– P02879 & P05670); CS.5.2.5= 20 sherds (P00692–P00705, P00733 & P05774–P05778); CS.2.52.5= 50 sherds (P00891–P00895. P00958, P06168– P06211); CS.5.2.1= 3 sherds (P01271–P01273); CS.5.1.3= 1 sherd

(P01890); CS.2.52.1= 2 sherds (P02303–P02304); CS.2.53.2= 1 sherd (P02320); CS.5.1.2.1= 4 sherds (P02341–P02344); CS.2.52.4= 7 sherds (P00678, P02872–P02874, P02878–P02879 & P05670); CS.5.10, Tomb 4= 3 sherds (P03534–P03536); CS.9.2.1= 5 sherds (P04058–P04062); CS.5.1.1= 1 sherd (P04184); CS.9.4= 19 sherds (P05754–P05772); CS.2.69.1.12= 1 sherd (P05773); CS.5.9= 40 sherds (P05779–P05814 & P05874–P05877); CS.5.2.4= 5 sherds (P06296–P06300); CS.2.52.3= 36 sherds (P06356–P06391); CS.2.68= 15 sherds (P06453–P06467); CS.2.57= 12 sherds (P06674–P06685); CS.2.61= 3 sherds (P07271–P07273)

Total sherds: 231 sherds

Figures: 111 (D); 114 (A); 115 (A–E, J); 116 (A–G);

Plates: 378 (B, D–F, H); 388 (B–D);

Parallels: Hili 8 settlement (Cleuziou 1978/9: fig.22–23, pp: 54–55); Tombs at Hili (al-Tikriti 1981: 151–153): Tomb B (Pl.69, figs, J, Q; Pl. 71; Pl.72, figs. B, C, E, F; Pl.74, figs. B, C; Pl.90, figs. A–C, E, F, G–N, Q–S; Pl.91, figs. A–J, M, N, O, P) & Tomb–H (Pl.72, fig. J); Ghanadha 1(al-Tikriti 1985: Plate 7: A–F); The settlement and tombs at Umm an-Nar Island in al-Tikriti 1981: 164 & 172–175: (Pl.106, figs. B–E; Pl.107, figs. A–C, E, F; Pl.128, figs. B, F–H; Pl.129, fig. G; Pl.130, figs. A–E, G, H; Pl.131, figs. D–L; Pl.132, figs, A–F; Pl.133, figs. A–D; Pl. 134, figs. E, G); Frifelt 1991: Figs. 68–75: 44–46; 104: 59; 110: 60; 112: 60; 115–116: 61; 145: 72; 154–156: 75; 159: 75; 162: 76; 171: 79; 175: 81; and (Frifelt 1995: fig. 91, pp: 64; figs. 226–230, pp: 169–172; also pp: 81–88, 100–108); Tomb A, Hili North (Vogt 1985b: Pls. 25–26); Tomb B at Ajman (al-Tikriti 1989b: Pls. 39, 40, 42, 50–53); al-Sufouh (Benton 1996: figs. 57–107)

Class Code: UMFBPW

Class Name: Umm an-Nar Fine Black Painted Ware

Period: U.Nar

Description: Fine, well-fired ware with conchoidal fracture. The surface is reddish yellow (Munsell 5YR, 7/6) and the core is light gray (Munsell 5YR, 7/1) and reddish yellow (Munsell 5YR, 7/6). The ware includes gray to brown rounded inclusions of less than 1mm size and covers 2% of the sherd. Walls thickness is c.1mm–1.3cm. This ware is similar to UMFRPW but with light gray to reddish yellow core and without the red coating but sometimes with black coating. Decoration includes black painted bands

mainly on, around and below the rim and sometimes the body, however, some sherds are undecorated.

Origin: Local?

Sites: CS.2.69.2= 8 sherds (P00053–P00060); CS.2.69.3.9 = 13 sherds (P00084–P00089 & P07529–P07535); CS.2.52.3= 40 sherds (P00324–P00329, P00337–P00348, P03158–P03172 & P06392–P06398); CS.2.68= 31 sherds (P00444– P06473); CS.5.2.5= 9 sherds (P00706–P00710 & P05285–P05288); CS.2.52.5= 29 sherds (P00896–P00906, P00959–P00961, P00965 & P06154–P06167); CS.3.1.4= 1 sherd (P01903); CS.3.5.2= 5 sherds (P02040–P02044); CS.1.5.1= 1 sherd (P02268); CS.5.1.2.1= 6 sherds (P02321–P02325 & P02345); CS.5.1.2= 5 sherds (P02985–P02989); CS.2.56.5= 2 sherds (P03916–P03916); CS.5.1.1= 1 sherd (P04187); CS.5.1.5= 2 sherds (P04429–P04430); CS.9.1.8= 3 sherds (P04562–P04564); CS.9.4= 26 sherds (P05039–P05042 & P05732–P05753); CS.5.9= 3 sherds (P05893–P05895); CS.2.51.1= 1 sherd (P06673); CS.2.52.2= 3 sherds (P07426–P07428)

Total sherds: 189 sherds

Figures: 111 (E); 113 (D, F, G); 114 (B–I); 115 (F–I); 118 (A–G); 119 (A–G); 121 (A); 124 (F); 125 (F); 126 (A);

Plates: 378 (C, G, I); 380 (A–J); 381 (A–E); 388 (A); 389 (A–H);

Parallels: Tombs at Hili (al-Tikriti 1981: 151–153): Tomb B (Pl.69, figs. J, Q; Pl. 71; Pl.72, figs. B, C, E, F; Pl.74, figs. B, C; Pl.90, figs. A–C, E, F, G–N, Q–S; Pl.91, figs. A–J, M, N, O, P) & Tomb–H (Pl.72, fig. J). The settlement and tombs at Umm an-Nar Island (al-Tikriti 1981: 164 & 172–175): (Pl.106, figs. B–E; Pl.107, figs. A–C, E, F; Pl.128, figs. B, F–H; Pl.129, fig. G; Pl.130, figs. A–E, G, H; Pl.131, figs. D–L; Pl.132, figs. A–F; Pl.133, figs. A–D; Pl. 134, figs. E, G) and Frifelt 1991: Figs. 59–67: 41–44; 93–103: 52–58; 105–106: 59; 108–109: 60; 111: 60; 117–118: 61; 136: 67; 138–141: 69–70; 143–144: 71; 146–153: 72–74; 157: 74; 161: 76; 163–166: 77; 172–174: 79–80; Frifelt 1979b: figs. 2–3: 45, 9: 48, 18: 56; Frifelt 1995: fig. 96, pp: 66–67; Fig. 238, pp: 175; also pp: 81–88, 100–108); Tomb A, Hili North (Vogt 1985b: Pls. 25–26); Tomb B at Bidya (al-Tikriti 1989a: Pls. 39, 40, 42, 50–53); al-Sufouh (Benton 1996: figs. 57–107); Tomb A at Hili North (Cleuziou & Vogt 1985: figs. 6: 261, 10: 274)

Class Code: UMTGW

Class Name: Umm an-Nar Thin Gray Ware

Period: U.Nar

Description: One fine, well-fired sherd of glassy fabric? with smooth fracture. The sherd is part of the vessel rim. The surface is reddish gray (Munsell 10R, 6/1) and the core is bluish gray (Munsell 1 CHROMA, 6/1). Decoration includes nail/bone prints or incised hatching decoration under the rim. Walls are very thin, varies between 1mm and 3mm. The ware is wheel-made.

Origin: South and south-eastern Iran; east and south-eastern Arabia?

Sites: CS.2.52.4= 1 sherd (P00681)

Total sherds: 1 sherd

Figures: 121 (D)

Plates: 383 (A)

Parallels: Tombs at Hili & the settlement and tombs at Umm an-Nar Island (al-Tikriti 1981: 156–158): Tomb–1059 (Pl.86, figs. A–C, L; Pl.87, figs. A, C), Tomb–B (Pl.81, fig. M; Pl. 88; Pl.89), the settlement at Umm an-Nar Island (Pl.110, figs. B–F; Pl.135, figs. E–F); Frifelt 1991: Figs. 122–124: 62–63 and (Frifelt 1995: fig.68, pp: 54; also pp: 81–88, 100–108);

Class Code: UMTFRW

Class Name: Umm an-Nar Thin Fine Red Ware

Period: U.Nar

Description: Very fine, well fired, red ware with conchoidal fracture. The surface is light red (Munsell 10R, 6/8) to red (Munsell 10R, 5/8) and the core is red (Munsell 10R, 5/8) to weak red (Munsell 10R, 4/4). The surface of this ware is soft with stony touch and its walls thickness is c.1–6 mm.

Origin: Local?

Sites: CS.2.55.1= 1 sherd (P00223); CS.5.9= 34 sherds (P00392–P00393, P05298–P05322 & P05885–P05891); CS.5.2.5= 21 sherds (P00728–P00730 & P05181–P05198); CS.5.2.1= 22 sherds (P01282–P01287 & P05586–P05601); CS.1.5.6= 6 sherds (P02094–P02099); CS.7.2= 12 sherds (P02816 & P17737–P17747); CS.5.2.4= 3 sherds (P04870 & P06301–P06302); CS.2.43.2= 2 sherds (P04894–P04895); CS.5.1.2.1= 10 sherds (P05153–P05162); CS.2.69.2= 5 sherds (P07259–P07263)

Total sherds: 116 sherds

Figures: 120 (E, F); 122 (E, H, I); 123 (J, L);

Plates: 386 (A–B)

Parallels: This ware is similar to the UMFRPW but the core is darker and no traces of paint were noted as well as the surface appears harder (Frifelt 1991: Figs. 107: 60; 113–114: 60; 158: 75; Frifelt 1995: 81–88, 100–108); Tomb A, Hili North (Vogt 1985b: Pls. 24).

Class Code: UMHFRW

Class Name: Umm an-Nar Heavy Fine Red Ware

Period: U.Nar

Description: Heavy, hard-fired, fine red ware with conchoidal fracture. The surface is red (Munsell 2.5YR, 6/6) to dark red (Munsell 2.5YR, 4/6), and the core is greenish gray (Munsell 1 CHROMA, 6/1) to dark gray (Munsell 1 CHROMA, 4/). The ware includes gray rounded inclusions of 1–1.4 mm size and covers 1% of the sherd. Walls' thickness is c.1 mm to 1 cm

Origin: Local?

Sites: CS.5.9= 10 sherds (P00400 & P05473–P05481); CS.2.69.1.3= 1 sherd (P00509); CS.2.52.5= 1 sherd (P00967); CS.9.2.2= 1 sherd (P01423); CS.5.1.2.1= 1 sherd (P02349); CS.5.2.4= 5 sherds (P04874–P04878); CS.5.2.5= 4 sherds (P05289–P05292); CS.5.1.2= 99 sherds (P05482–P05580); CS.5.2.1= 17 sherds (P05653–P05669)

Total sherds: 139 sherds

Figures: 111 (A); 124 (A);

Parallels: The settlement of Umm an-Nar Island: Frifelt 1991: Figs. 107: 60; 113–114: 60; 158: 75; Frifelt 1995: fig. 231, pp: 172 & figs. 233–234, pp: 173; also pp: 81–88, 100–108.

Class Code: UMFW

Class Name: Umm an-Nar Fine Ware

Period: U.Nar

Description: Thin, fine hard-fired ware with conchoidal fracture. The surface is red (Munsell 2.5YR, 6/6) with a gray (Munsell 1 CHROMA, 6/) sandwich and gray (Munsell 1 CHROMA, 6/) to light red (Munsell 10R, 6/8) core. The ware includes gray to brown rounded inclusions of up to 1mm size and covers 3% of the sherd. Walls thickness is c.1–6

mm. This ware is similar to the UMHFRW but the walls are thinner and the core is darker as well as the inclusions are denser.

Origin: Local?

Sites: CS.2.52.4= 2 sherds (P00682–P00683); CS.5.2.5= 24 sherds (P00721–P00727 & P05217–P05233); CS.2.52.5= 15 sherds (P00962–P00963 & P06212–P06224); CS.5.2.1= 43 sherds (P01288–P01305 & P05621–P05645); CS.5.1.2.1= 27 sherds (P02328–P02334 & P05088–P05107); CS.5.1.2.2= 3 sherds (P02978–P02980); CS.5.2.3= 2 sherds (P03566–P03567); CS.5.1.5= 3 sherds (P04440–P04442); CS.5.9= 74 sherds (P05349–P05415 & P05878–P05884); CS.5.2.4= 22 sherds (P06274–P06295); CS.2.68= 16 sherds (P06474–P06489); CS.2.57= 2 sherds (P06686–P06687); CS.5.2.2= 17 sherds (P07191–P07207); CS.2.69.2= 25 sherds (P07234–P07258); CS.2.52.2= 8 sherds (P07418–P07425); CS.2.69.3.9= 17 sherds (P07512–P07528); CS.2.69.3.12= 1 sherd (P13725); CS.2.69.3.1= 14 sherds (P13726–P13739); CS.9.4= 31 sherds (P16445–P16475); CS.2.1= 5 sherds (P19236–P19240)

Total sherds: 351 sherds

Figures: 122 (A); 123 (A, D, E)

Plates: 378 (A)

Parallels: The settlement of Umm an-Nar Island: Frifelt 1991: Figs. 107: 60; 113–114: 60; 158: 75; Frifelt 1995: fig. 231, pp: 172 & figs. 233–234, pp: 173; also pp: 81–88, 100–108.

Class Code: UMVPW

Class Name: Umm an-Nar Very Polished Ware

Period: U.Nar

Description: One sherd with very polished and shiny surfaces, and hard like stone with fine, conchoidal fracture, and hard firing. The sherd is part of vessel with possible rounded rim? The colour of the surface is dark red (Munsell 2.5YR, 3/6) and red (Munsell 2.5YR, 5/6) and the core is dusky red (2.5YR, 3/4) and dark reddish gray (Munsell 2.5YR, 4/1). Inclusions include gray rounded (less than 1 mm; 1%) and shiny mica on surfaces and core. The surface includes scratching of possible tool/wheel making traces. Walls thickness is c.2 mm–1 cm.

Origin: Possibly imported from India/Baluchistan?

Sites: CS.5.9= 1 sherd (P00389)

Total sherds: 1 sherd

Parallels: ?

Class Code: UMBGC

Class Name: Umm an-Nar Bluish Gray Core

Period: U.Nar

Description: Coarse ware with rough fracture and medium firing. The surface is reddish yellow (Munsell 5YR, 7/6), and the core is bluish gray (Munsell 1 CHROMA, 5/1). The ware includes gray rounded and rectangular (1–3 mm; 6%) and void? traces of chaff (rectangular) (1–3 mm; 3%) inclusions. This was is light with walls' thickness of c.1–4 mm. Similar to the UMGCC but with darker core.

Origin: Local?

Sites: CS.2.41.5 = 9 sherds (P01748–P01756)

Total sherds: 9 sherds

Parallels: The settlement at the Umm an-Nar Island (al-Tikriti 1981: 163–164; Pl.120, figs. A–B; Pl.121, figs. A–D; Pl.122, figs. A–E) & (Frifelt 1995: 81–88, 100–108); and the graves (Frifelt 1991: Fig. 131: 65)

Class Code: UMGCCW

Class Name: Umm an-Nar Gray Core Coarse Ware

Period: U.Nar

Description: Thin, coarse ware with smooth fracture, and medium firing. The surface is red (Munsell 2.5YR, 6/8) to reddish yellow (Munsell 5YR, 7/6) and the core is light gray (Munsell 5YR, 7/1) to red (Munsell 10R, 5/8). The ware includes white, gray & brown rounded inclusions of up to 1mm size and covers 5% of the sherd. Walls thickness is c.1–8 mm. This ware is abundant in the settlement sites and rare in the tombs and thus, it is called the domestic coarse ware.

Origin: Local?

Sites: CS.2.68 = 42 sherds (P00477–P00478 & P06501– P06540); CS.5.2.5 = 21 sherds (P00714– P00716 & P05199– P05216); CS.9.2.2 = 4 sherds (P01417– P01420); CS.5.1.3 = 20 sherds (P01865– P01884); CS.3.1.4 = 2 sherds (P01895– P01896); CS.3.5.2 = 2 sherds (P02046– P02047); CS.1.5.5 = 7 sherds (P02397– P02403); CS.5.2.3 = 1 sherd (P03565); CS.5.1.5 = 9 sherds (P04431– P04439); CS.5.2.4 = 2 sherds (P04871– P04872);

CS.5.1.2.1= 16 sherds (P05072– P05087); CS.5.2.5= 21 sherds (P00714– P00716 & P05199– P05216); CS.5.9= 26 sherds (P05323– P05348); CS.5.2.1= 17 sherds (P05602– P05618); CS.2.57= 27 sherds (P06699– P06725)

Total sherds: 196 sherds

Figures: 120 (D, G); 122 (B, G); 123 (B, K, M)

Parallels: The settlement at the Umm an-Nar Island (al-Tikriti 1981: 163–164; Pl.120, figs. A–B; Pl.121, figs. A–D; Pl.122, figs. A–E) & (Frifelt 1995: 81–88, 100–108); and the graves (Frifelt 1991: Fig. 131: 65); Tomb A, Hili North (Vogt 1985b: Pl. 23)

Class Code: UMCGW

Class Name: Umm an-Nar Coarse Gray Ware

Period: U.Nar

Description: Medium coarse gray ware with smooth fracture and medium firing. The surface is gray (Munsell 5YR, 6/1) to light greenish gray (Munsell 1 CHROMA, 7/1) and the core is light gray (Munsell 7.5YR, 7/1) to reddish brown (Munsell 5YR, 5/3). The outer surface is gray to light greenish gray while the inner surface is gray to reddish brown. The ware includes gray and white rounded to angular inclusions of 1–3mm size and covers 2% of the sherd with some traces of wheel making/turning. Several sherds are decorated with incised horizontal and wavy lines. Walls thickness is c.3–8 mm. This ware is similar to UMTCW but with thinner walls and incised decoration but unpainted.

Origin: Local?

Sites: CS.2.68= 18 sherds (P00470–P00476 & P06490–P06500); CS.5.2.5= 3 sherds (P00711– P00713); CS.2.57= 12 sherds (P01203 & P06688– P06698); CS.5.2.1= 6 sherds (P01278–P01281 & P05584–P05585); CS.9.2.2= 4 sherds (P01414–P01416 & P01424); CS.3.1.4= 4 sherds (P01891–P01894); CS.5.1.2.1= 1 sherd (P02327); CS.5.1.2= 2 sherds (P02993–P02994); CS.2.52.3= 6 sherds (P03173 & P06425–P06429); CS.5.10, Tomb 4= 1 sherd (P03533); CS.5.2.4= 6 sherds (P04864–P04869); CS.2.50.1= 2 sherds (P04973–P04974); CS.5.9= 2 sherds (P05296–P05297); CS.2.52.5= 3 sherds (P06225–P06227)

Total sherds: 70 sherds

Figures: 112 (A); 120 (A–B); 122 (F); 123 (F–I)

Plates: 385 (A–E); 391 (A–C)

Parallels: Sherds 1424, 2993 & 4869 have similar parallels from Hili, tomb–1059 (al-Tikriti 1981: Pl. 86, figs. M, Q, R) & the settlement at Umm an-Nar Island (al-Tikriti

1981: Pl.110, figs. C–F) & (Frifelt 1995: 81–88, 100–108), and the graves (Frifelt 1991: Figs. 132: 65; 134: 66; Frifelt 1979b: figs. 6–7: 47); al-Sufouh (Benton 1996: fig. 126); Tomb A at Hili North (Cleuziou & Vogt 1985: figs. 9: 270)

Class Code: UMRYW

Class Name: Umm an-Nar Reddish Yellow Ware

Period: U.Nar

Description: Thick, well fired reddish yellow coarse ware with conchoidal fracture. The surface is reddish yellow (Munsell 7.5YR, 7/6), and the core is reddish yellow (Munsell 7.5YR, 7/6) to gray (Munsell 5YR, 6/1). The ware includes gray and brown rounded (1–2 mm; 4%) and void? traces of chaff prints (rectangular) (1–3 mm; 1%) inclusions. Most of the sherds belong to large and thick jars. Walls' thickness is c.3–8 mm. This type is similar to the UMTCW but without coating and its fabric is less coarse or semi-coarse, and its core is darker in colour.

Origin: Local?

Sites: CS.2.52.3= 12 sherds (P00330–P00336 & P03174–P03178); CS.5.9= 6 sherds (P00394–P00399); CS.2.68= 12 sherds (P00479–P00483 & P06543–P06549); CS.2.52.4= 4 sherds (P00684–P00687); CS.5.2.5= 2 sherds (P00731–P00732); CS.2.52.5= 4 sherds (P00907–P00909 & P00964); CS.9.2.2= 5 sherds (P01421–P01422 & P01425–P01427); CS.3.1.4= 2 sherds (P01904–P01905); CS.3.5.2= 4 sherds (P02048–P02051); CS.1.5.5= 1 sherd (P02416); CS.4.1.6= 1 sherd (P02635); CS.5.1.2.2= 1 sherd (P02984); CS.5.1.2= 45 sherds (P03001–P03004 & P12312–P12352); CS.5.1.1= 2 sherds (P04185–P04186); CS.5.2.4= 1 sherd (P04873); CS.2.50.1= 1 sherd (P04975); CS.5.2.1= 7 sherds (P05646–P05652)

Total sherds: 110 sherds

Figures: 113 (A–B); 117 (A–H); 121 (B); 124 (B, D, E); 125 (A–E, G–I); 126 (C–H);

Plates: 379 (A–K); 384 (A–E)

Parallels: The settlement at Umm an-Nar Island (al-Tikriti 1981: 181, Pl.134) & (Frifelt 1995: 81–88, 100–108), and the graves (Frifelt 1991: Fig. 88: 51)

Class Code: UMTCW

Class Name: Umm an-Nar Thick Coarse Ware

Period: U.Nar

Description: Medium coarse hard-fired ware with thick walls, and conchoidal fracture. The surface is light red (Munsell 2.5YR, 7/8) and the core is light red (Munsell 2.5YR, 7/8). The ware includes gray to brown rounded inclusions of up to 1.5mm size and covers 7% of the sherd. Decoration includes red coating with wheel making/turning traces on the inner surface. The ware is heavy with walls' thickness of c.4 mm–1.4 cm. It is wheel-made.

Origin: Local?

Sites: CS.5.2.5= 11 sherds (P00717–P00720 & P05174–P05180); CS.3.5.2= 1 sherd (P02045); CS.5.2.3= 6 sherds (P03559–P03564); CS.1.1= 2 sherds (P04652–P04653); CS.5.1.2.1= 4 sherds (P05068–P05071); CS.5.2.1= 2 sherds (P05619–P05620); CS.5.9= 1 sherd (P05892); CS.2.69.2= 7 sherds (P07264–P07270)

Total sherds: 34 sherds

Parallels: Hili (al-Tikriti 1981: 158): Tomb–1059 (Pl.96; Pl.97, figs. A–B; Pl.98; Pl.99; Pl.100; and the settlement at the Umm an-Nar Island (Frifelt 1995: 81–88, 100–108), and the graves (Frifelt 1991: Fig. 135: 67)

Class Code: UMCW

Class Name: Umm an-Nar Coarse Ware

Period: U.Nar

Description: Medium coarse red ware with rough fracture and medium firing. The surface is red (Munsell 2.5YR, 6/8) to reddish yellow (Munsell 5YR, 7/6), and the core is light greenish gray (Munsell 1 CHROMA, 7/1) to red (Munsell 2.5YR, 6/8). The ware includes gray and white rounded inclusions of 1–2 mm size and covers 4% of the sherd. Some sherds might have traces of painting or coating but badly eroded and the inner surface of some sherds have light gray colour. Walls thickness is c.1 mm–1 cm. This ware is similar to the UMTCW but with thinner walls.

Origin: Local?

Sites: CS.2.69.3.9= 1 sherd (P00090); CS.5.9= 117 sherds (P00401, P05416–P05472 & P05815–P05873); CS.2.69.1.3 = 7 sherds (P00502–P00508); CS.2.50.2, Tomb 2= 1 sherd (P00622); CS.5.2.5= 53 sherds (P00734–P05284); CS.2.52.5= 47 sherds (P00966 & P06228–P06273); CS.2.57= 1 sherd (P01204); CS.9.5= 3 sherds (P01681–P01683); CS.2.41.5= 11 sherds (P01737–P01747); CS.5.1.3= 5 sherds (P01885–P01889); CS.3.1.4= 6 sherds (P01897–P01902); CS.2.50.2= 5 sherds (P02224–P02228); CS.2.52.1= 1 sherd

(P02302); CS.5.1.2.1= 54 sherds (P02335–P02340, P02346–P02348 & P05108–P05152); CS.1.5.5= 12 sherds (P02404–P02415); CS.2.1= 4 sherds (P02454–P02457); CS.2.20= 30 sherds (P02707 & P17634–P17662); CS.2.52.4= 3 sherds (P02875–P02877); CS.5.1.2.2= 3 sherds (P02981–P02983); CS.5.1.2= 9 sherds (P02995–P03000 & P05581–P05583); CS.2.52.2= 7 sherds (P03883–P03885 & P07429–P07432); CS.9.2.1= 2 sherds (P04056–P04057); CS.5.1.5= 13 sherds (P04443–P04455); CS.5.2.4= 39 sherds (P04879–P04880 & P06304–P06340); CS.2.52.3= 26 sherds (P06399–P06424); CS.5.2.2= 20 sherds (P07213–P07232)

Total sherds: 480 sherds

Figures: 113 (C); 120 (C, H, I); 121 (C); 122 (D); 124 (C); 126 (B)

Plates: 390 (A–G)

Parallels: Hili (al-Tikriti 1981: 158): Tomb–1059 (Pl.96; Pl.97, figs. A–B; Pl.98; Pl.99; Pl.100; and the settlement at Umm an-Nar Island (Frifelt 1995: 81–88, 100–108) and the graves (Frifelt 1991: Fig. 135: 67)

Class Code: UMVPBW

Class Name: Umm an-Nar Very Pale Brown Ware

Period: U.Nar

Description: Thin, very pale brown coarse ware with red colour on the inner surface, smooth fracture and medium firing. The surface is very pale brown (Munsell 10YR, 7/4), and the core is reddish yellow (Munsell 5YR, 6/6). The ware includes gray rounded inclusions of 1 mm size and covers 4% of the sherd. Walls thickness is 1–5 mm. This ware is similar to the UMCW but the core is lighter and coating traces were possibly in the inner side of the walls?

Origin: Local?

Sites: CS.2.41.10= 10 sherds (P01671–P01676 & P13290– P13293); CS.5.1.1= 14 sherds (P06342–P06355)

Total sherds: 24 sherds

Figures: 113 (E)

Plates: 383 (B–C)

Parallels: Hili (al-Tikriti 1981: 158): Tomb–1059 (Pl.96; Pl.97, figs. A–B; Pl.98; Pl.99; Pl.100; and the settlement at Umm an-Nar Island (Frifelt 1995: 81–88, 100–108), and the graves (Frifelt 1991: Figs. 86–88: 50–51; 90–92: 52; 125–130: 63–65; 137: 68)

Class Code: UNUMS

Class Name: Unidentifiable Umm an-Nar Sherds

Period: U.Nar

Description: These are small badly eroded, fragmentary sherds of coarse and rough fracture, and soft firing. The surface's colour is unclear and the core tends to be gray?

Origin: ?

Sites: CS.5.1.2.1= 30 sherds (P05163– P05173 & P.12478–P.12496); CS.5.1.5= (10 sherds: P.13039–P.13048)

Total sherds: 40 sherds

Parallels: ?

C.1.2– WADI SUQ PERIOD:

Class Code: GCWS

Class Name: Gray Core Wadi Suq

Period: W.Suq

Description: Pink, coarse ware with smooth fracture and medium firing. The surface is pink (Munsell 7.5Y, 7/4), and the core is dark gray (Munsell 7.5Y, 4/1) core with gray and brown rounded and sub-rectangular inclusions of up to 2 mm size and covers 3% of the sherd. Walls' thickness is c.1–5 mm

Origin: Local?

Sites: CS.2.11= 1 sherd (P00843); CS.2.50.2= 8 sherds (P00844–P00851)

Total sherds: 9 sherds, and one possible sherd from site CS.1.5.4 (P02093)

Parallels: Velde 1992, 2003; Potts 1990c: 56–95; 1991: 36–75

Class Code: RYWS

Class Name: Reddish Yellow Wadi Suq

Period: W.Suq

Description: Medium coarse ware with smooth fracture and medium firing. The surface and the core are reddish yellow (Munsell 5YR, 6/6) with gray and brown rounded and angular inclusions of up to 2 mm size and covers 3% of the sherd. Walls' thickness is c.1 mm to 1 cm

Origin: Local?

Sites: CS.2.52.3= 1 sherd (P00804); CS.9.2.2= 3 sherds (P01428–P01430); CS.1.5.4= 2 sherds (P02091–P02092); CS.7.2= 7 sherds (P02828–P02834)

Total sherds: 13 sherds

Figures: 127 (A–B)

Plates: 393 (A–B)

Parallels: Two sherds 804 and 1428 have possible unpainted footed–bases with parallels from Shimal Settlement Fabrics 1–3 (Franke–Vogt & Velde 1987: figs.43, Nos.1–10; Velde 1992: 62–64) Sharm (Barker 2002: Fig.4, Nos. 2–16, pp: 7; Fig.5, SP–1, SP–6, SP–466); Tell Abraq (Potts 1991: 41, figs.39, nos.10, 12); also Velde 1992, 2003; Potts 1990c: 56–95; 1991: 36–75

Class Code: PGWS

Class Name: Plain Gray Wadi Suq

Period: W.Suq

Description: Thin, light, medium coarse ware with smooth fracture and medium firing. The surface is gray (Munsell 5YR, 5/1) to light gray (Munsell 5YR, 7/1), and the core is gray (Munsell 5YR, 5/1) with gray and brown rounded inclusions of up to 2 mm size and covers 2% of the sherd. Walls' thickness is c.1–5 mm. Some sherds are badly eroded.

Origin: Local?

Sites: CS.2.11= 4 sherds (P00839–P00842)

Total sherds: 4 sherds with possible 5 sherds from site CS.2.56.3 (P02383–P02387)

Parallels: Velde 1992, 2003; Potts 1990c: 56–95; 1991: 36–75

Class Code: RPWS

Class Name: Red Painted Wadi Suq

Period: W.Suq

Description: Red, medium firing coarse ware with black painted decoration and smooth fracture. The surface and core are light red (Munsell 10R, 6/8) with gray and brown rounded inclusions of up to 1.5 mm size and covers 2% of the sherd. Walls thickness is c1–6 mm. This ware is thin and light. Some sherds are badly eroded

Origin: Local?

Sites: CS.5.9= 1 sherd (P00402); CS.2.1= 1 sherd (P02458); CS.9.8= 10 sherds (P04881–P04890); CS.2.4= 12 sherds (P04136–P04147)

Total sherds: 24 sherds

Plates: 392 (A–B)

Parallels: Two sherds (4881, 4882) of simple flat or straight rims of possible beakers have possible parallels from Bidya 1 (al-Tikriti 1989a: Pl.70, A–B); also Velde 2003: figs. 2.5–10, pp: 103); two sherds (402, 2458) with traces of black or red paint of possible painted beakers that have possible examples from Bidya 1 (al-Tikriti 1989a: Pls. 94, A: 63, A–C; 64, A–B) and Hili 8 (Cleuziou 1989a: Pl.31, Nos.2–5); Shimal (Velde 1992: 34); also Velde 1992, 2003; Potts 1990c: 56–95; 1991: 36–75

Class Code: LATEBRONZE?

Class Name: Late Bronze Age

Period: L.B.A

Description: Hard-fired coarse ware with smooth fracture. The surface and core are light red (Munsell 10R, 6/8) to light gray (Munsell 5YR, 7/1) with gray and brown rounded inclusions of up to 1.5 mm size and covers 4% of the sherd. Walls thickness is c1–8 mm. This class was difficult to sign to either Wadi Suq or Early Iron Age, thus it was assigned to the broad chronological period.

Origin: ?

Sites: CS.1.5= 25 sherds (P00254–P00278)

Total sherds: 25 sherds

Parallels: Velde 1992, 2003; Potts 1990c: 56–95; 1991: 36–75

C.1.3– EARLY IRON AGE:

Class Code: BREIA

Class Name: Black–on–Red Early Iron Age

Period: EIA

Description: Black–on–red, coarse thin and well fired ware with smooth fracture. The surface is black–on–red and the core is red core (Munsell 2.5 YR, 5/6) with black to brown, rounded inclusions of 1 mm size & covers c.3% of the sherd. The outer surface is black (painted/coated?) on red. The inner surface also has traces of black painting/coating? Walls are thin with a thickness of c.4–6 mm.

Origin: Local?

Sites: CS.2.67.14= 11 sherds (P00009–P00011 & P13705–P13712); CS.2.67.17= 14 sherds (P07498–P07511)

Total sherds: 25 sherds

Figures: 130 (G);

Plates: 392 (A–C)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pls, 49, 50-52)

Class Code: LFEIA

Class Name: Light Fine Early Iron Age

Period: EIA

Description: Light fine ware and thin walls as well as well fired fabric and smooth fracture. The surface is red (Munsell 10R, 5/6) and the core is dark red (Munsell 2.5 YR, 4/8) with gray rounded inclusions of 1 mm size and covers c.1% of the sherd. Walls thickness is 3–6 mm

Origin: Local?

Sites: CS.2.67.9=11 sherds (P00777–P00787); CS.2.69.2= 4 sherds (P00061–P00064)

Total sherds: 15 sherds

Figures: 132 (B); 134 (C); 135 (E, F); 139 (A)

Plates: 394 (B–F); 398 (A–B); 407 (A–B)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.50, No.2; pl.47, No.1; pl.52, No.3; pl.59, No.8); Tell Abraq excavation: (Potts 1991: pl.112, nos.9,11,14, pp: 85); Al-Madam area excavation: (Benoist, Cordoba & Mouton 1997: fig.6, nos.10, pp: 69)

Class Code: THFEIA

Class Name: Thick Hard Fired Early Iron Age

Period: EIA

Description: Fine, thick, heavy ware with conchoidal fracture and hard firing. The surface is reddish yellow (Munsell 5YR, 6/6) and the core is light greenish gray core (Munsell 1 CHROMA) with gray to brown, Oval to rounded inclusions of 1–2 mm size and covers c.2% of the sherd. Walls thickness is 4 mm to 1.2 cm

Origin: Local?

Sites: CS.2.67.14= 2 sherds (P00012–P00013); CS.2.69.1.4= 1 sherd (P00284); CS.4.4= 11 sherds (P00864–P00874); CS.2.60= 6 sherds (P07321–P07326)

Total sherds: 20 sherds

Figures: 132 (A, C); 135 (D); 136 (A); 137 (G)

Plates: 395; 405 (A–B)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.51, No.6; pl.53, Nos.2, 5 & pl.56, No.7); Tell Abraq excavation: (Potts 1991: fig.112, No.5; pp: 85) & (Magee 1996: fig.2, pp: 243) & (Benoist, Cordoba & Mouton 1997: fig.7, nos.1, 6, pp: 71)

Class Code: TBPEIA

Class Name: Thick Black Painted Early Iron Age

Period: EIA

Description: Thick, heavy well-fired ware with black paint on both surfaces, and conchoidal fracture. The surface is light red (Munsell 10R, 7/8) and the core is dark reddish gray (Munsell 2.5YR, 4/1) with gray, rounded inclusions of 1–2 mm size and covers c.3% of the sherd. Walls thickness is c.5 mm to 2.5 cm, with black paint on the exterior and interior surfaces.

Origin: Local?

Sites: CS.2.69.2= 1 sherd (P00073); CS.2.56.3= 1 sherd (P01391)

Total sherds: 2 sherds

Figures: 135 (A)

Plates: 396 (A–B)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.49: 1–28; pl.71: 8a–b; pl.50: 1–3)

Class Code: RFEIA

Class Name: Red Fine Early Iron Age

Period: EIA

Description: Red, fine well fired ware with conchoidal fracture and red surface (Munsell 10Y, 5/6) as well as gray core (Munsell 5YR, 6/1) with light brown, rounded inclusions of less than 1 mm size and covers c.1% of the sherd. Walls thickness is c.3–8 mm

Origin: Local?

Sites: CS.2.42.11= 6 sherds (P00041–P00046); CS.4.4= 3 sherds (P00875–P00877)

Total sherds: 9 sherds

Figures: 133 (G); 136 (D)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pls. 49, 50)

Class Code: FPEIA

Class Name: Fine Painted Early Iron Age

Period: EIA

Description: Fine, thin, light hard-fired ware with smooth fracture and red surface (Munsell 2.5YR, 6/8) as well as gray sandwich (Munsell 5YR, 6/1) with brown, rounded inclusions of less than 1 mm size and covers c.1% of the sherd. Decoration includes dusky red painted bands on both interior and exterior surfaces. Walls' thickness is c3–5 mm.

Origin: Iran? Local?

Sites: CS.2.69.2= 1 sherd (P00066); CS.2.69.1.4= 4 sherds (P00280–P00283); CS.5.13, Tomb 3= 42 sherds (P00538–P00548 & P03116–P03146); CS.2.50.2, Tomb 1= 4 sherds (P00607–P00610); CS.2.67.9= 2 sherds (P00798–P00799); CS.5.13, Tomb 1= 6 sherds (P00882–P00887); CS.9.2.2= 8 sherds (P01454–P01461); CS.3.8.1= 1 sherd (P01620); CS.2.51.5= 1 sherd (P02714); CS.2.52.3= 3 sherds (P03030–P03032); CS.2.43.2= 2 sherds (P04891–P04892); CS.2.50.1= 1 sherd (P04976)

Total sherds: 75 sherds

Figures: 128 (A–B); 129 (D, F, G); 130 (A–D); 134 (D, E); 139 (D)

Plates: 399 (A–D); 400 (A–D)

Parallels: Hili 2 settlement excavation (Al-Rahman 1978/9: pp: 9 & fig. 6: pp: 18); Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.71, Nos.8a & 11; pl.49, Nos.1,2; Pl.50, Nos.1–3); Tell Abraq excavation: (Potts 1991: fig.112. no.6, pp: 85) Magee (1996: fig.3, pp: 242); Sharm excavation (Barker 2002): Fig.28, Nos. 11: SP–247, 12: SP–230 & 13: SP–457, pp: 34; Fig. 25: No. 9: SP–252/448, pp: 30 and fig.26, pp: 32)

Class Code: TREIA

Class Name: Thin Red Early Iron Age

Period: EIA

Description: Thin, fine ware with smooth fracture and hard firing with light red surface (Munsell 2.5YR, 7/6) and red core (Munsell 2.5YR, 6/8). The ware includes very small

gray to brown, rounded inclusions on both surfaces (exterior and interior) of up to 1.5 mm size and covers c.1% of the sherd. Sometimes the surfaces include dark red painting. Walls' thickness is c.3–8 mm.

Origin: Local?

Sites: CS.2.56.4= 5 sherds (P00530–P00532 & P04556–P04557); CS.5.13, Tomb 1= 11 sherds (P00601–P00606 & P01805–P01809); CS.2.52.6= 2 sherds (P00578–P00579); CS.2.50.2= 12 sherds (P02212–P02223); CS.2.51.5= 3 sherds (P02711–P02713); CS.2.67.9= 68 sherds (P13636–P13703); CS.2.67.14= 1 sherd (P13704)

Total sherds: 102 sherds

Figures: 131 (E); 134 (F); 135 (B, C); 139 (C)

Plates: 408

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.23: 1–13)

Class Code: VTCEIA

Class Name: Very Thin Coarse Early Iron Age

Period: EIA

Description: Very thin and rough coarse ware with medium firing. The surface is light red (Munsell 2.5YR, 7/6) and the core is pale red (Munsell 10R, 7/4) with gray to brown, rounded and angular inclusions of up to 1 mm size and covers c.4% of the sherd. Walls' thickness is c.3–5 mm

Origin: Local?

Sites: CS.2.50.2, Tomb 1= 8 sherds (P00611–P00618); CS.5.13, Tomb 1= 17 sherds (P00631–P00647); CS.2.52.4= 1 sherd (P00689); CS.1.5.1= 7 sherds (P02259–P02265); CS.5.13, Tomb 3= 9 sherds (P03149– P03157)

Total sherds: 42 sherds

Figures: 129 (A); 132 (E)

Parallels: Tell Abraq excavation: (Magee 1996: fig.1, pp: 242)

Class Code: VCEIA

Class Name: Very Coarse Early Iron Age

Period: EIA

Description: Thick, very coarse, pink ware with rough fracture and medium firing. The surface is pink (Munsell 5YR, 8/4) and the core is gray (Munsell 5YR, 6/1) with gray to

brown, angular and/or sub-rectangular inclusions of up to 6 mm size and covers c.7% of the sherd. Walls' thickness is c.1 cm to 2.5 cm

Origin: Local?

Sites: CS.2.68= 2 sherds (P00019–P00020); CS.2.52.6= 3 sherds (P00580–P00582); CS.2.52.5= 1 sherd (P00911)

Total sherds: 6 sherds

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.47: 11 & pl.48:1)

Class Code: VPBEIA

Class Name: Very Pale Brown Early Iron Age

Period: EIA

Description: Coarse hard-fired ware with smooth fracture and very pale brown surface (Munsell 10R, 7/4) and light greenish gray core (Munsell 1 CHROMA, 7/1) with gray to brown, rounded inclusions of up to 1 mm size and covers c.3% of the sherd.

Origin: Local?

Sites: CS.5.13, Tomb 3= 3 sherds (P00555 & P03147–P03148); CS.3.8.1= 2 sherds (P01621–P01622); CS.2.56.5= 2 sherds (P03918–P03919)

Total sherds: 7 sherds

Figures: 130 (E); 137 (H–I)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985)

Class Code: GSCEIA

Class Name: Gray Sandwich Coarse Early Iron Age

Period: EIA

Description: Thick, heavy coarse ware with rough fracture and hard firing. The surface is reddish yellow (Munsell 7.5YR, 7/6) and light gray sandwich (Munsell 7.5YR, 7/1) with gray to brown, rounded and angular inclusions of 1–4 mm size and covers c.6% of the sherd; Walls' thickness is c.5 mm–2 cm.

Origin: Local?

Sites: CS.2.68= 3 sherds (P00021–P00022 & P00026); CS.2.69.2= 5 sherds (P00068–P00072); CS.2.11= 9 sherds (P00097–P00104 & P00120); CS.9.5= 3 sherds (P00152–P00154); CS.2.69.1.4= 1 sherd (P00279); CS.2.50.2= 4 sherds (P00558–P00561);

CS.2.52.6= 3 sherds (P00576–P00577 & P00596); CS.3.8.1= 1 sherd (P01623); CS.1.5.6= 1 sherd (P02163); CS.5.7= 1 sherd (P02777); CS.2.67.11= 3 sherds (P03391–P03393); CS.2.67.26= 2 sherds (P03693–P03694)

Total sherds: 36 sherds

Figures: 128 (C); 133 (E); 136 (C)

Plates: 404 (A–F); 406 (A–C)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985) and Tell Abraq (Potts 1990c: 96–123 & 1991); Of significance is Sherd P02163 that represents appliqué snake motif in relief decoration that has similar example from: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.51, No.7; pl.71, No.4); Muweilah excavation (Magee 1998a: fig.4, pp: 115) and Bithnah–44/50 (Benoist 2007: 34–54)

Class Code: CEIA

Class Name: Coarse Early Iron Age

Period: EIA

Description: Large brown gritted coarse ware with rough fracture and medium firing. The surface is red (Munsell 2.5YR, 6/8) and the core is red (Munsell 2.5YR, 6/8) or Gray (Munsell 5.5YR, 6/1) with large brown, square and angular inclusions/grits of 1–6 mm size and covers c.5% of the sherd. Walls' thickness is 6 mm to 1.4 cm

Origin: Local?

Sites: CS.2.68= 8 sherds (P00023–P00025 & P00484–P00488); CS.2.69.2= 1 sherd (P00067); CS.2.69.3.9= 1 sherd (P00091); CS.2.2.1= 5 sherds (P00092–P00096); CS.9.5= 3 sherds (P00150–P00151 & P00160); CS.2.50.2= 6 sherds (P00570–P00575); CS.2.50.2, Tomb 2= 3 sherds (P00619–P00621); CS.2.52.4= 2 sherds (P00688 & P00690); CS.2.52.5= 1 sherd (P00910); CS.2.42.29= 1 sherd (P01361); CS.5.13, Tomb 2= 2 sherds (P02229–P02230); CS.2.69.1.3= 2 sherds (P02288–P02289); CS.2.52.1= 1 sherd (P02305); CS.5.7= 6 sherds (P02778–P02780 & P17690–P17692); CS.2.67.17= 4 sherds (P02846–P02849); CS.2.67.11= 1 sherd (P03390); CS.2.43.2= 1 sherd (P04893); CS.2.67.22= 4 sherds (P13713–P13716)

Total sherds: 52 sherds

Figures: 132 (D, F); 137 (E, F); 138 (B–C)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.47, No.6,7,15; pl.48, nos.2,3; pl.52, Nos.1–3; pl.53, nos.1,8); Tell Abraq excavation: (Potts

1991: fig. 109, pp: 82; fig.110, nos.1–7, pp: 82; fig.111, nos.1–4, pp: 83) & (Magee 1996: fig.2, pp: 243); Al-Madam area excavation: (Benoist, Cordoba & Mouton 1997: fig.5, no.16, pp: 65; fig.6, nos.7, 12, pp: 69); Muweilah (Magee, Pers. Comm., August 2007).

Class Code: PEIA

Class Name: Painted Early Iron Age

Period: EIA

Description: Dusky red painted coarse ware with rough fracture and medium firing. The surface and core are red (Munsell 2.5YR, 6/8) with gray to brown, angular inclusions on both surfaces of up to 1 mm size and covers c.3% of the sherd. Painted decoration of wavy and horizontal lines and bands on both surfaces, around and under the rim, neck and shoulder. Walls' thickness is c.4–6 mm.

Origin: Iran? Local?

Sites: CS.2.42.11= 4 sherds (P00047–P00050); CS.2.67.24 = 7 sherds (P00163–P00169); CS.4.3= 1 sherd (P00203); CS.2.69.1.3= 5 sherds (P00496–P00500); CS.2.56.4= 12 sherds (P00533–P00534 & P04546–P04555); CS.5.13, Tomb 3= 6 sherds (P00549–P00554); CS.2.67.9= 10 sherds (P00788–P00797); CS.5.13, Tomb 1= 1 sherd (P00888); CS.9.2.2= 1 sherd (P01453); CS.2.64= 5 sherds (P02369–P02373); CS.5.14, Tomb 4= 4 sherds (P02388–P02391); CS.2.52.3= 7 sherds (P03023–P03029)

Total sherds: 63 sherds

Figures: 128 (D); 129 (B, C, E); 130 (F); 134 (B); 136 (E–H); 139 (E)

Plates: 401 (A–B); 402 (A–G); 403

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.49, Nos.3–7, 10, 15–24; pl.53, No.7; pl.58, No.14; pl.71, Nos.9–10); Tell Abraq excavation: (Magee 1996: fig.4, c: pp: 163); Al-Madam area excavation: (Benoist, Cordoba & Mouton 1997: fig.5, no.13, pp: 65; fig.6, nos.1,2, pp: 69)

Class Code: RLEIA

Class Name: Red Light Early Iron Age

Period: EIA

Description: Coarse, well-fired heavy ware with smooth fracture and red Light surface (Munsell 10Y, 6/8) as well as red light core (Munsell 10Y, 6/8) with brown, sub-rounded (up to 1.5 mm, 4%) inclusions and light-gray traces of straw? (Up to 1.5 mm, 1%). Walls

thickness is c.5mm–1cm. Some sherds include nail prints (incisions) on and around the rim.

Origin: Local?

Sites: CS.2.68= 3 sherds (P00014–P00016); CS.3.1.3= 2 sherds (P00039–P00040); CS.2.11= 15 sherds (P00105–P00119); CS.2.50.2= 8 sherds (P00562–P00569); CS.2.67.9= 4 sherds (P00800–P00803)

Total sherds: 32 sherds

Figures: 133 (A, D); 139 (B)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.51.nos.3–4; pl.53, Nos.11–12); Tell Abraq excavation: (Magee & Carter 1999: fig.4, b, d: pp: 163)

Class Code: GMCEIA

Class Name: Gritted Medium Coarse Early Iron Age

Period: EIA

Description: Large gritted medium coarse ware with rough fracture and medium firing. The surface is reddish yellow (Munsell 5YR, 7/8) and the core is reddish yellow (Munsell 5YR, 7/8), and/or gray (Munsell 5YR, 6/1) with brown to red, square and angular (1 mm–up to 1 cm; 6%) and white rounded (Up to 1 mm; 1%) inclusions and traces of straw/chaff prints. Walls' thickness is c.5 mm to 1.5 cm.

Origin: Local?

Sites: CS.2.68= 2 sherds (P00017–P00018); CS.9.5= 5 sherds (P00155–P00159); CS.4.3= 2 sherds (P00201–P00202); CS.2.56.4= 7 sherds (P00535–P00537 & P04558–P04561); CS.4.13, Tomb 8= 26 sherds (P00805–P00810 & P03513–P03532); CS.2.11= 1 sherd (P00838); CS.4.4= 4 sherds (P00878–P00881); CS.1.5.1= 2 sherds (P02266–P02267); CS.2.67.9= 1 sherd (P08070); CS.4.13, Tomb 9= 12 sherds (P11746–P11757)

Total sherds: 63 sherds

Figures: 131 (A–C); 137 (A); 138 (E–F)

Plates: 394 (A)

Parallels:

Rumeilah Settlement excavation (Boucharlat & Lombard 1985: Pl.65 & pl.73, Nos.3–4)

Class Code: HFEIA

Class Name: Hard Fired Early Iron Age

Period: EIA

Description: Thin, coarse well-fired ware, with conchoidal fracture, and reddish yellow surface (Munsell 5YR, 7/6) and red (Munsell 2.5YR, 6/8) and sometimes reddish gray core (Munsell 10R, 6/1) with gray to brown, angular and sub-rounded inclusions of 1–4 mm size and covers c.5% of the sherd. Some sherds are light greenish gray (1 CHROMA, 7/1) on the inner surface (6 sherds from site CS.4.3). Walls' thickness is c.2–8 mm

Origin: Local?

Sites: CS.2.69.2= 1 sherd (P00065); CS.2.69.1.3= 1 sherd (P00501); CS.5.2.5= 1 sherd (P00736); CS.4.3= 24 sherds (P00170–P00193)

Total sherds: 27 sherds

Figures: 133 (F); 138 (D)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.52, no.4; pl.54, Nos.5–6); Tell Abraq excavation: (Magee 1996: fig.2, pp: 243)

Class Code: TCEIA

Class Name: Thin Coarse Early Iron Age

Period: EIA

Description: Thin, coarse ware with rough fracture and soft firing. The surface and the core are light red (Munsell 2.5YR, 7/6) with brown to white rounded inclusions of 1–2 mm size and covers c.2% of the sherd. Walls' thickness is c.2–8 mm

Origin: Local?

Sites: CS.5.13, Tomb 3= 2 sherds (P00556–P00557); CS.2.52.6= 3 sherds (P00583–P00585); CS.2.51.7.2= 16 sherds (P01497–P01507 & P13380–P13384); CS.5.10, Tomb 2= 23 sherds (P01509–P01531)

Total sherds: 44 sherds

Figures: 131 (D, F); 134 (G); 137 (B–D)

Parallels: Tell Abraq excavation: (Magee & Carter 1999: fig.4.h, pp: 163)

Class Code: RLREIA

Class Name: Red-on-Light Red Early Iron Age

Period: EIA

Description: Heavy, red-on-light-red coarse ware with conchoidal fracture and hard firing. The surface is red (Munsell 2.5YR, 6/6) and light red (Munsell 2.5YR, 6/7) and the

core is reddish yellow (Munsell 5YR, 6/8) with gray to brown rounded and oval inclusions of 1–2.5 mm size and covers c.5% of the sherd. Walls' thickness is c.4 mm to 1 cm. Some sherds bear projected bands with incised finger/nail prints and herring–bone decoration.

Origin: Local?

Sites: CS.2.52.6= 10 sherds (P00586–P00595); CS.2.52.5= 1 sherd (P00912); CS.2.51.5= 2 sherds (P02715–P02716); CS.4.4= 32 sherds (P07439–P07470); CS.2.51.8.1= 15 sherds (P07483–P07497)

Total sherds: 60 sherds

Plates: 409

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.48, Nos.2,4; pl.52.no.7; pl.55.nos.6–8; Pl.65; pl.71, no.6.; pl.73, Nos.3–4) ; Tell Abraq excavation: (Potts 1990c: fig.117, pp: 96; fig. 104, nos.1–8, pp: 81; figs. 105, 106, 107: pp: 80; fig. 108, pp: 81); (Potts 1991: 103, Nos.1–3, pp: 80; fig. 104, nos.1–8, pp: 81; figs. 105, 106, 107: pp: 80; fig. 108, pp: 81); (Magee 1996: fig.2), (Magee 1999: fig.3, pp: 44)

Class Code: RBCEIA

Class Name: Red–Black Coarse Early Iron Age

Period: EIA

Description: Thin, light coarse ware with rough fracture and soft firing. The surface is red (Munsell 2.5YR, 6/6) and reddish black (Munsell 2.5YR, 2.5/1) and the core is light gray (Munsell 10R, 7/1) with brown to gray rounded (1 mm; 2%) and white to gray sub–rectangular (1mm–1cm; 1%) inclusions. Walls' thickness is c.3 mm to 1 cm.

Origin: Local?

Sites: CS.5.13, Tomb 1= 6 sherds (P00627–P00630 & P01810–P01811); CS.4.4= 6 sherds (P07433–P07438)

Total sherds: 12 sherds

Figures: 134 (A); 138 (A)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985)

Class Code: RYEIA

Class Name: Reddish Yellow Early Iron Age

Period: EIA

Description: Thin, coarse ware with smooth fracture and medium firing as well as reddish yellow surfaces; both inside and outside and gray core with gray to white traces of straw/chaff prints 1–4 mm in size and covers 4% of the sherd. Walls' thickness is c.1–4 mm.

Origin: Local?

Sites: CS.4.3= 8 sherds (P00194–P00200 & P00204); CS.2.56.3= 11 sherds (P01380–P01390); CS.2.67.26= 5 sherds (P03695–P03699)

Total sherds: 24 sherds

Figures: 133 (B, C); 136 (B)

Parallels: Rumeilah Settlement excavation (Boucharlat & Lombard 1985: pl.23: 14–18)

Class Code: UNEIA

Class Name: Unidentifiable Early Iron Age

Period: EIA

Description: Badly small eroded coarse sherds with rough fracture and soft firing. The surface is red to light red? Walls thickness is c.2 mm to up to 1 cm

Origin: ?

Sites: CS.2.56.3= 11 sherds (P01392–P01402); CS.4.14, Tomb 8= 4 sherds (P04544–P04545 & P05043–P05044)

Total sherds: 15 sherds

Parallels: ?

C.1.4– LATE IRON AGE/SAMAD:

Class Code: FGLIA

Class Name: Fine Gray Late Iron Age

Period: LIA

Description: Very thin and fine gray ware with smooth fracture and medium firing. The surface is gray (Munsell 10YR, 5/1), and the core is yellowish red (Munsell 5YR, 5/8) with white rounded inclusions of up to 1 mm size and covers 1% of the sherd. Walls' thickness is c.1–5 mm

Origin: Local?

Sites: CS.5.10, Tomb 1= 13 sherds (P01258–P01270); CS.9.1.1= 32 sherds (P04371–P04402)

Total sherds: 45 sherds

Figures: 146 (E–F)

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: FRLIA

Class Name: Fine Red Late Iron Age

Period: LIA

Description: Thin red fine ware with smooth fracture and hard firing. The surface is red (10R, 5/8) to reddish yellow (Munsell 7.5YR, 7/6), and the core is red (Munsell 10R, 4/8) to light red (Munsell 10R, 7/8) with gray and white rounded inclusions of up to 1.5 mm size and covers 1% of the sherd. Decoration includes incised herring bones with and without hatched or pitted design? Walls' thickness is 1–6 mm.

Origin: Local?

Sites: CS.2.58= 4 sherds (P00354–P00356 & P00820); CS.2.53.2= 1 sherd (P02312); CS.7.4, Tomb 1= 1 sherd (P04189); CS.2.29= 1 sherd (P04651); CS.2.50.1= 5 sherds (P05007–P05011)

Total sherds: 12 sherds

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: LGCLIA

Class Name: Large Gritted Coarse Late Iron Age

Period: LIA

Description: Thick, medium to very coarse ware with large grits and rough fracture as well as soft firing. The surface is light red (Munsell 2.5YR, 7/8) to red (Munsell 2.5YR, 6/6), and the core is red (Munsell 2.5YR, 6/8) to reddish gray (Munsell 10R, 6/1) with gray, brown and white angular, rectangular and rounded inclusions of 1–4 mm size and covers 6% of the sherd and traces of chaff/straw prints. Decoration includes incised herring bones with and without hatched or pitted design; incised wavy line(s); projected plain band(s); incised motif like sun–flower or sun with radiations? Walls' thickness is c.1 mm to 2.4 cm.

Origin: Local?

Sites: CS.2.58= 4 sherds (P00350–P00351 & P00811–P00812); CS.2.62= 1 sherd (P00748); CS.2.57= 8 sherds (P01205–P01208 & P07314–P07317); CS.2.60= 4 sherds

(P01306–P01309); CS.9.2.2= 4 sherds (P01431–P01434); CS.2.42.10= 9 sherds (P01604–P01612); CS.9.5= 14 sherds (P01684–P01697); CS.2.53= 1 sherd (P01812); CS.2.43.1= 4 sherds (P01824–P01827); CS.1.5.6= 16 sherds (P02136–P02151); CS.2.51.8.1= 1 sherd (P02290); CS.2.64= 2 sherds (P02374–P02375); CS.1.5.5= 1 sherd (P02417); CS.2.23= 4 sherds (P02420–P02423); CS.1.4= 4 sherds (P02469–P02472); CS.6, Tomb 6= 2 sherds (P02495– P02496); CS.2.20= 49 sherds (P02663–P02664 & P17488–P17534); CS.2.51.5= 6 sherds (P02717–P02719 & P03033–P03035); CS.2.57.1= 9 sherds (P02835–P02837 & P06807–P06812); CS.2.67.29= 6 sherds (P02965–P02967 & P13717–P13719); CS.2.52.2= 5 sherds (P03873 & P07414–P07417); CS.2.56.5= 8 sherds (P03920–P03922 & P13505–P13509); CS.2.43.2= 17 sherds (P03923–P03935 & P04896–P04899); CS.9.1.7= 2 sherds (P04046–P04047); CS.9.2.1= 13 sherds (P04063–P04075); CS.2.3= 9 sherds (P04148–P04156); CS.4.1.4= 3 sherds (P04298–P04300); CS.9.1.1= 43 sherds (P04306–P04348); CS.4.9= 10 sherds (P04456–P04465); CS.2.56.7= 1 sherd (P04472); CS.2.56.6= 3 sherds (P04492–P04494); CS.9.1.8= 15 sherds (P04565–P04579); CS.2.29= 5 sherds (P04613–P04617); CS.2.50.1= 5 sherds (P05019–P05023); CS.9.4= 8 sherds (P05024–P05031); CS.2.51.1= 16 sherds (P02930–P02933, P05054– P05058, P06643–P06648 & P08036); CS.2.68= 7 sherds (P06550–P06556); CS.2.50.2= 12 sherds (P06830–P06841); CS.2.11= 20 sherds (P07327–P07346)

Total sherds: 351 sherds

Figures: 143 (D); 144 (A–F); 146 (A–C); 149 (A–C)

Plates: 411; 418

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: CRYLIR

Class Name: Coarse Reddish Yellow Late Iron Age

Period: LIA

Description: Thick, very coarse ware with smooth fracture and medium firing. The surface is reddish yellow (Munsell 5YR, 7/8), and the core is gray (Munsell 2YR, 6/1) with gray and brown angular and rounded inclusions of 1–3 mm size and covers 4% of the sherd. Walls' thickness is c.3 mm to 2 cm. Some sherds have traces of firing/burning on the exterior surface.

Origin: Local?

Sites: CS.2.52.3= 1 sherd (P00827); CS.2.57= 5 sherds (P01216–P01217 & P06726–P06728); CS.2.60= 1 sherd (P01313); CS.2.57.1= 3 sherds (P02843–P02845); CS.4.1.4 = 1 sherd (P04301); CS.2.56.6= 1 sherd (P04495); CS.2.56.7= 1 sherd (P04539); CS.9.1.8= 1 sherd (P04589); CS.2.68= 2 sherds (P06557–P06558); CS.2.51.1= 20 sherds (P06649–P06668); CS.4.14, Tomb 3= 2 sherds (P11786–P11787); CS.9.5= 54 sherds (P16510–P16563); CS.6, Tomb 6= 10 sherds (P17727–P17736)

Total sherds: 102 sherds

Figures: 148 (B, E)

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: CGLIA

Class Name: Coarse Gray Late Iron Age

Period: LIA

Description: Medium coarse gray ware with rough fracture and medium firing. The surface and the core are gray (Munsell 5YR, 6/1) to reddish gray (Munsell 10R, 5/1) with white and gray rounded inclusions of up to 1.5 mm size and covers 3% of the sherd. Decoration includes incised leaf decoration. Walls' thickness is c.1–6 mm

Origin: Local?

Sites: CS.2.57= 4 sherds (P01218 & P07318–P07330); CS.9.2.2= 1 sherd (P01452); CS.9.5= 2 sherds (P01698–P01699); CS.2.20= 21 sherds (P02705–P02706 & P17535–P17553); CS.7.2= 1 sherd (P02827); CS.2.52.4= 9 sherds (P02880–P02888); CS.2.51.1= 6 sherds (P02934 & P05067–P06672); CS.2.23= 6 sherds (P02947–P02952); CS.2.51.5= 2 sherds (P03045–P03046); CS.2.51.8.3= 8 sherds (P03551–P03558); CS.5.1.1= 1 sherd (P04188); CS.2.56.6= 2 sherds (P04496–P04497); CS.9.1.8= 5 sherds (P04594–P04598); CS.2.29= 2 sherds (P04649–P04650); CS.2.50.1= 7 sherds (P05012–P05018); CS.2.52.3= 1 sherd (P06452); CS.2.68= 2 sherds (P06559–P06560); CS.2.51.1= 6 sherds (P02934 & P05067–P06672); CS.2.50.2= 2 sherds (P06842–P06843)

Total sherds: 82 sherds

Figures: 146 (D); 149 (E, F)

Plates: 413 (A–C)

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: CLIA

Class Name: Coarse Late Iron Age Coarse Gray Late Iron Age

Period: LIA

Description: Thin, medium fired coarse ware with smooth fracture and medium firing. The surface is red (Munsell 2.5YR, 6/6) to light red (Munsell 2.5YR, 7/6), and the core is red (Munsell 2.5YR, 6/8) to dark reddish gray (Munsell 2.5YR, 5/1) with white, brown and gray rounded and angular inclusions of 1–3 mm size and covers 5% of the sherd. Decoration includes incised or pitted design, incised herring bones with and without hatched or pitted design? Projected circles and bands with or without incised hatched, net or cross hatched or herring bone design and/or incised wavy and horizontal line(s). Similar to the LGCLIA but finer and well fired and less gritted. Walls' thickness is 1mm to 1 cm.

Origin: Local?

Sites: CS.2.52.3= 29 sherds (P00349, P00821–P00826, P03179 & P06430–P06450); CS.2.62= 1 sherd (P00749); CS.2.58= 5 sherds (P00813–P00817); CS.2.57= 26 sherds (P01209–P01215 & P06729–P06747); CS.2.60= 3 sherds (P01310–P01312); CS.9.2.2= 15 sherds (P01435–P01449); CS.2.42.10= 7 sherds (P01613–P01619); CS.2.53= 21 sherds (P01813–P01818 & P13438–P13452); CS.2.43.1= 7 sherds (P01828–P01834); CS.4.1.1= 3 sherds (P01999–P02001); CS.3.5.2= 3 sherds (P02052–P02054); CS.1.5.6= 11 sherds (P02152–P02162); CS.2.51.8.1= 5 sherds (P02291–P02295); CS.2.50.3.1= 4 sherds (P02308–P02311); CS.2.64= 13 sherds (P02376–P02382 & P13597–P13602); CS.2.23= 39 sherds (P02424–P02962); CS.2.1= 10 sherds (P02459–P02468); CS.1.4= 18 sherds (P02473–P02490); CS.2.51.8.14= 27 sherds (P02636–P02662); CS.2.20= 311 sherds (P02665–P02703, P06907–P07124 & P17554–P17607); CS.2.51.5= 25 sherds (P02720–P03044); CS.7.2= 10 sherds (P02817–P02826); CS.2.57.1= 22 sherds (P02838–P02842 & P06813–P06829); CS.5.15, Tomb 4= 10 sherds (P03378–P03387); CS.2.65.1= 52 sherds (P03680–P03689, P04097–P04117 & P13608–P13628); CS.2.29= 202 sherds (P03730–P03872, P04618–P04648 & P05671–P05698); CS.2.52.2= 26 sherds (P03874–P03882 & P07397–P07413); CS.2.43.2= 28 sherds (P03936–P03954 & P04900–P04908); CS.9.1.7= 8 sherds (P04048–P04055); CS.9.2.1= 9 sherds (P04076–P04084); CS.7.1.4= 5 sherds (P04123–P04127); CS.2.3= 12 sherds (P04157–P04168); CS.3.4= 71 sherds (P04169–P04180 & P06748–P06806); CS.9.1.1= 22 sherds (P04349–P04370); CS.4.9= 4 sherds (P04466–P04469); CS.2.56.7= 32 sherds (P04473–P04491 & P04526–P04538); CS.2.41.5= 24 sherds (P04498–P04521); CS.5.10, Tomb 5= 16 sherds (P04541 &

P17876–P17890); CS.9.1.8= 9 sherds (P04580–P04588); CS.2.50.1= 30 sherds (P04977–P05006); CS.2.51.1= 50 sherds (P05053, P05059–P05066 & P06602–P06642); CS.2.68= 30 sherds (P06561–P06590); CS.2.50.2= 62 sherds (P06844–P06905); CS.4.3= 53 sherds (P07125–P07177); CS.2.51.8.6= 25 sherds (P07282–P07306); CS.2.11= 50 sherds (P07347–P07396); CS.2.42.29= 1 sherd (P13294); CS.5.10, Tomb 13= 13 sherds (P17903–P17915)

Total sherds: 1459 sherds

Figures: 140 (C–H); 141 (A–D, F, H); 142 (A, C–E); 143 (A, E, F, H, I); 145 (A–E); 147 (A, C, E, G, I); 148 (A, C, D, G–I)

Plates: 412 (A–B); 415 (A–B); 416 (A–B); 417 (A–D); 419 (A–C); 420 (A–G)

Parallels: This is the most common ware recovered from many areas such as Samad and Maysar excavations: (Yule 2001a)

Class Code: TCLIA

Class Name: Thin Coarse Late Iron Age

Period: LIA

Description: Thin, coarse light ware with smooth fracture and soft firing. The surface is reddish yellow (Munsell 5YR, 7/6) to red (Munsell 2.5YR, 6/8), and the core is reddish gray (Munsell 2.5YR, 6/1) to red (Munsell 2.5YR, 6/8) with brown and gray rounded inclusions of 1–2 mm size and covers 3% of the sherd. Decoration includes incised wavy and/or irregular lines between horizontal lines design. Some of the sherds bear signs of burning/firing on the exterior surface. Walls' thickness is c.1–8 mm

Origin: Local?

Sites: CS.2.58= 4 sherds (P00352–P00353 & P00818–P00819); CS.2.62= 2 sherds (P00750–P00751); CS.2.52.3= 2 sherds (P00828–P00829); CS.2.60= 1 sherd (P01315); CS.9.2.2= 2 sherds (P01450–P01451); CS.2.43.1= 3 sherds (P01835–P01837); CS.2.69.3.2= 5 sherds (P02392–P02396); CS.2.20= 27 sherds (P02704, P17608–P17633); CS.2.51.5= 2 sherds (P02736–P02737); CS.5.10, Tomb 5= 12 sherds (P02795–P02806); CS.2.51.8.3= 14 sherds (P03537–P03550); CS.2.51.8.6= 6 sherds (P03886–P03891); CS.9.1.8= 4 sherds (P04590–P04593); CS.2.29= 14 sherds (P05699–P05712); CS.4.3= 13 sherds (P07178–P07190); CS.2.1= 12 sherds (P19224–P19235)

Total sherds: 123 sherds

Figures: 87 (A–B); 141 (E, G); 142 (B); 143 (B, C, G); 145 (F); 147 (B, D, F); 148 (F)

Plates: 410 (A–F); 414 (A–D)

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: DGCLIA

Class Name: Dark Gray Coarse Late Iron Age

Period: LIA

Description: Reddish Yellow coarse ware with smooth fracture and medium firing. The surface is reddish yellow (Munsell 5YR, 6/8), and the core is dark gray (Munsell 1 CHROMA, 4/) with gray and brown rounded and sub–rounded inclusions of up to 2 mm size and covers 2% of the sherd. Walls' thickness is c.1–8 mm.

Origin: Local?

Sites: CS.2.60= 1 sherd (P01314); CS.2.23= 1 sherd (P02453); CS.2.41.5= 13 sherds (P04522–P04525 & P13215–P13223); CS.2.56.7= 1 sherd (P04540); CS.2.43.2 = 4 sherds (P04909–P04912)

Total sherds: 20 sherds

Figures: 147 (H)

Parallels: Samad and Maysar excavations: (Yule 2001a)

Class Code: IRON?

Class Name: Unidentifiable Iron Ware

Period: IA

Description: Coarse, medium–fired ware with smooth fracture and red to yellowish surfaces and gray to light gray core. These sherds are of Iron Age but it was difficult to sign them either to Early or Late Iron Age.

Origin: ?

Sites: CS.2.48= 1 sherd (P13340); CS.2.45= 1 sherd (P13341); CS.2.51.7.1= 4 sherds (P13375–P13378)

Total sherds: 6 sherds

Parallels: ?

C.1.5– SASANIAN–EARLY ISLAMIC PERIOD:

Class Code: SASAN

Class Name: Sasanian Early Islamic

Period: Sasan–E.Islamic

Description: Sasanian Early Islamic of possibly clinky coarse ware with sub–conchoidal fracture and hard firing. The surface is pale yellow (Munsell 2.5Y 8/4) or weak red (Munsell 2.5YR 6/3) to dark reddish grey (2.5YR 5.1) and the core is red (2.5YR 6/8–5/6). The fabric includes white, grey and brown inclusions. The surface usually includes splashes of glaze, mainly on the interior with different colours ranges between white, green, blue and yellow. Decoration includes incised lines. Walls' thickness is c.1 mm to 1 cm.

Origin: Iran? local?

Sites: CS.1.5.5= 2 sherds (P08254–P08255); CS.1.5.1= 6 sherds (P11852–P11857); CS.1.5.2= 4 sherds (P12064–P12067)

Total sherds: 12 sherds

Parallels: Kush (Kennet 2004: 62, fig.35, pp: 129)

Class Code: GGEI

Class Name: Green Glazed Early Islamic

Period: E.Islamic

Description: Coarse glazed ware with smooth fracture and medium firing. The glaze colour varies between green, yellow and turquoise. The surface and the core are pale yellow (Munsell 2.5Y, 8/2) with gray and brown rounded inclusions of up to 1 mm size and covers 2% of the sherd. Walls' thickness is c.1–6 mm

CS.4.12 (1 sherd: P.1408) + CS.2.51.1 (3 sherds: P.6111–P.6113) + CS.7.2 (1 sherd: P.7794)

Origin: Central and/or Southern Iraq

Sites: CS.2.51.5= 4 sherds (P01403–P01406); CS.4.12.2= 1 sherd (P01408); CS.1.5.5= 1 sherd (P02814); CS.2.43.2= 1 sherd (P03957); CS.9.4= 3 sherds (P06111–P06113); CS.7.2= 1 sherd (P07794); CS.2.60= 4 sherds (P07869–P07872)

Total sherds: 15 sherds

Plates: 421 (A–C); 422 (A–D)

Parallels: Turquoise Glaze ware from Kush and al–Mataf (Kennet 2004: 29–31, fig.5, pp: 102)

C.1.6– MIDDLE ISLAMIC PERIOD:

Class Code: VCGMI

Class Name: Very Coarse Gritted Middle Islamic

Period: M.Islamic

Description: Thick, heavy and very coarse ware with rough fracture and medium firing. The surface is red (Munsell 2.5YR, 6/8) to reddish yellow (Munsell 5YR, 7/8), and the core is reddish yellow (Munsell 5YR, 7/8) to light gray (Munsell 5YR, 7/1) with large gray, brown and white angular, rounded and sub-rectangular grits inclusions of 1–3.5 mm size and covers 6% of the sherd. Some of sherds' surfaces bear gray coating? (badly preserved). Walls' thickness is c.1 mm to 2 cm.

Origin: Local?

Sites: CS.2.55.1= 8 sherds (P00205–P00213); CS.2.68= 1 sherd (P00489); CS.7.1.4= 1 sherd (P00677); CS.2.62= 6 sherds (P00752–P00757); CS.3.1.2= 9 sherds (P00913–P00921); CS.1.5.4= 25 sherds (P00968–P00992); CS.1.5.2 = 33 sherds (P01000–P01032); CS.3.1.3= 11 sherds (P01086–P01096); CS.9.1.2= 11 sherds (P01219–P01229); CS.2.43.3= 14 sherds (P01366–P01379); CS.9.1.5= 15 sherds (P01532–P01546); CS.9.1.6= 25 sherds (P01624–P01648); CS.2.24= 2 sherds (P01757–P01758); CS.5.1.3= 7 sherds (P01838–P01844); CS.4.1.1= 14 sherds (P02002–P02015); CS.3.5.2= 5 sherds (P02055–P02059); CS.1.5.6= 5 sherds (P02100–P02104); CS.1.5.1= 14 sherds (P02231–P02244); CS.1.5.5= 16 sherds (P02269–P02284); CS.2.52.1= 2 sherds (P02306–P02307); CS.5.1.2.1= 3 sherds (P02350–P02352); CS.5.1.4= 3 sherds (P02352–P02354); CS.4.1.6= 40 sherds (P02507–P02546); CS.4.1.5= 11 sherds (P02738–P02748); CS.1.6= 9 sherds (P02764–P02772); CS.5.1.6= 14 sherds (P02850–P02863); CS.3.5.3= 5 sherds (P02889–P02893); CS.7.1.3= 2 sherds (P02963–P02964); CS.5.1.2= 18 sherds (P03005–P03022); CS.3.5.1= 10 sherds (P03211–P03220); CS.3.1.1= 19 sherds (P03251–P03269); CS.4.2= 26 sherds (P03310–P03335); CS.9.6= 51 sherds (P03394–P03421 & P06051–P06073); CS.9.10= 17 sherds (P03568–P03584); CS.4.12.1= 20 sherds (P03638–P03657); CS.3.7.5= 6 sherds (P03700–P03705); CS.9.1.4= 12 sherds (P03892–P03903); CS.3.1.5= 11 sherds (P03958–P03968); CS.9.1.7= 4 sherds (P04010–P04013); CS.4.1.4= 36 sherds (P04190–P04225); CS.2.50.5= 11 sherds (P04403–P04413); CS.4.1.3= 36 sherds (P04654–P04689); CS.9.1.3= 6 sherds (P04811–P04816); CS.3.7.3= 40 sherds (P05927–P05966); CS.2.50.1= 3 sherds (P06087–P06089)

Total sherds: 637 sherds

Figures: 152 (B–E)

Parallels: Kush: Red Speckled ware (Kennet 2004: 64; fig.40, pp: 134

Class Code: NMIW

Class Name: Nabhani Middle Islamic Ware

Period: M.Islamic

Description: Red and gray thin coarse ware with smooth fracture and medium firing. The surface is light red (Munsell 10R, 6/6) to reddish gray (Munsell 10R, 6/1), and the core is light red (Munsell 10R, 6/8) with gray and brown rounded inclusions of up to 2 mm size and covers 2% of the sherd. The decoration includes group of painted horizontal bands of around 2–5 mm wide and vary between pale yellow (2.5Y, 8/3) and light gray (2.5Y, 7/1). Walls' thickness is 1 mm to 1 cm.

Origin: Local?

Sites: CS.2.68= 15 sherds (P00490–P00493 & P06591–P06601); CS.3.1.2= 28 sherds (P00852–P00857, P03690–P03692 & P08800–P08818); CS.4.1.1= 10 sherds (P00858–P00861 & P02016–P02021); CS.3.5.2= 12 sherds (P00862, P02060–P02066 & P09859–P09862); CS.1.5.4= 1 sherd (P00863); CS.1.5.2= 9 sherds (P01033–P01041); CS.9.1.6= 11 sherds (P01649–P01659); CS.5.1.3= 9 sherds (P01845–P01847 & P12671–P12676); CS.1.5.6= 8 sherds (P02105–P02112); CS.1.5.1= 1 sherd (P02245); CS.4.1.6= 21 sherds (P02547–P02567); CS.3.5.1= 4 sherds (P03221–P03224); CS.3.7.5= 7 sherds (P03706–P03712); CS.9.1.4= 5 sherds (P03904 & P14966–P14969); CS.2.43.2= 2 sherds (P03955–P03956); CS.3.7.3= 5 sherds (P05900–P05904); CS.3.1.3= 15 sherds (P06006–P06020); CS.2.50.5= 2 sherds (P06153 & P13372); CS.7.1.3= 1 sherd (P07854); CS.1.2.1= 1 sherd (P08074); CS.3.1.1= 6 sherds (P08594–P08599); CS.3.1.4= 6 sherds (P09349–P09354); CS.3.1.5= 5 sherds (P09487–P09491); CS.3.1.6= 1 sherd (P09525); CS.3.5.3= 4 sherds (P10019–P10022); CS.4.1.3= 7 sherds (P10811–P10817); CS.4.1.4= 2 sherds (P11035–P11036); CS.4.12.1= 7 sherds (P11708–P11714); CS.5.1.2= 1 sherd (P12311); CS.5.1.2.1= 3 sherds (P12413–P12415); CS.5.1.4= 2 sherds (P12899–P12900); CS.5.1.5= 8 sherds (P13016–P13023); CS.5.8= 6 sherds (P13171–P13176); CS.2.41.10= 1 sherd (P13289); CS.2.43.1= 1 sherd (P13307); CS.2.43.3= 2 sherds (P13326–P13327); CS.2.55.1= 3 sherds (P13484–P13486); CS.2.55.4= 3 sherds (P13497–P13499); CS.2.62= 13 sherds (P13558–P13570); CS.9.1.1= 6 sherds (P13962–P13967); CS.9.1.2= 14 sherds

(P14314–P14327); CS.9.1.3= 11 sherds (P14711–P14721); CS.9.1.5= 9 sherds (P15251–P15259); CS.9.1.7= 7 sherds (P15840–P15846); CS.9.1.8= 3 sherds (P16050–P16052); CS.9.4= 2 sherds (P16504–P16505); CS.9.5= 5 sherds (P16809–P16813); CS.9.6= 4 sherds (P17065–P17068); CS.9.10= 14 sherds (P17438–P17451); CS.6, Tomb 6= 3 sherds (P17722–P17724); CS.7.1.1= 3 sherds (P18059–P18061); CS.7.1.2= 20 sherds (P18312–P18331); CS.7.1.4= 9 sherds (P18682–P18690); CS.7.1.5= 1 sherd (P18805)

Total sherds: 360 sherds

Figures: 156 (A–H); 157 (A–C); 158 (A–F)

Plates: 427; 428, 429

Parallels: Surface pottery from Julfar (de Cardi & Doe 1971: fig.13, Nos.40–42, pp: 265)

Class Code: GWMI

Class Name: Gray Ware Middle Islamic

Period: M.Islamic

Description: Thin coarse gray ware with smooth fracture and medium firing. The surface and the core are dark gray (Munsell 7.5YR, 4/1) to light gray (Munsell 7.5YR, 7/1) with white and brown rounded inclusions of up to 1.5 mm size and covers 3% of the sherd. Walls' thickness is c.1–8 mm. Some sherds bear incised decoration of wavy and horizontal lines.

Origin: Local?

Sites: CS.1.5.1= 5 sherds (P00313–P00317); CS.2.62= 2 sherds (P00775–P00776); CS.3.1.2= 18 sherds (P00940–P00957); CS.1.5.4= 2 sherds (P00998–P00999); CS.3.1.3= 23 sherds (P01168–P01168 & P06040–P06048); CS.2.53.1= 11 sherds (P01316–P01318 & P01349–P01356); CS.9.1.5= 1 sherd (P01603); CS.9.1.6= 3 sherds (P01668–P01670); CS.3.7.3= 12 sherds (P01800–P01804 & P05967–P05973); CS.5.1.3= 5 sherds (P01860–P01864); CS.3.1.4= 19 sherds (P01953–P01971); CS.4.1.1= 4 sherds (P02033–P02036); CS.1.5.6= 7 sherds (P02126–P02132); CS.4.1.6= 20 sherds (P02593–P02612); CS.3.5.3= 6 sherds (P02925–P02929 & P05051); CS.3.1.1= 6 sherds (P03304–P03309); CS.4.2= 14 sherds (P03364–P03377); CS.9.6= 18 sherds (P03501–P03512 & P06077–P06082); CS.9.10= 8 sherds (P03625–P036320); CS.4.12.1= 1 sherd (P03668); CS.3.7.5= 1 sherd (P03726); CS.9.1.7= 7 sherds (P04031–P04037); CS.4.1.4= 25 sherds (P04263–P04287); CS.4.1.3= 16 sherds (P04744–P04759); CS.1.5= 4 sherds (P04807–P04810); CS.9.1.3= 5

sherds (P04838–P04842); CS.1.5.2= 7 sherds (P05723–P05729); CS.3.5.1= 2 sherds (P05730–P05731); CS.9.4= 1 sherd (P06110)

Total sherds: 253 sherds

Figures: 152 (A); 155 (A–B, E–G, K)

Plates: 426 (A, B, E)

Parallels: Kush: Spotty ware (Kennet 2004: 64; fig.38, pp:132)

Class Code: YCWMI

Class Name: Yellowish Coarse Ware Middle Islamic

Period: M.Islamic

Description: Medium coarse, yellowish ware with smooth fracture and medium firing. The surface and the core are pale yellow (Munsell 2.5Y, 8/3) with gray rounded inclusions of up to 2 mm size and covers 2% of the sherd. Walls' thickness is c.1 mm to 1 cm.

Origin: Local?

Sites: CS.3.1.3= 20 sherds (P01182 & P06021–P06039); CS.4.1.1= 3 sherds (P02037–P02039); CS.1.5.1= 5 sherds (P02254–P02258); CS.4.1.6= 6 sherds (P02613–P02618); CS.4.1.5= 6 sherds (P02758–P02763); CS.3.5.1= 14 sherds (P03237–P03250); CS.3.7.5= 3 sherds (P03727–P03729); CS.9.1.7= 4 sherds (P04038–P04041); CS.4.1.4= 10 sherds (P04288–P04297); CS.4.1.3= 37 sherds (P04760–P04796); CS.3.7.3= 22 sherds (P05905–P05926)

Total sherds: 130 sherds

Figures: 152 (G); 155 (D)

Plates: 426 (F)

Parallels: similar to Kush: Cream pots (Kennet 2004: 64; figs.39, pp: 133) but without the incised decoration

Class Code: CMI

Class Name: Coarse Middle Islamic

Period: M.Islamic

Description: Medium coarse ware with smooth fracture and hard firing. The surface is light red (Munsell 10R, 6/6 and 2.5YR, 7/6) to greenish gray (Munsell 1CHROMA, 6/1). and the core is light red (Munsell 10R, 7/6) to light gray (Munsell 10R, 7/1) with gray, white and brown rounded and angular inclusions of up to 3 mm size and covers 3% of the

sherd. Walls' thickness is c.1 mm to 1.5 cm. Decoration includes some projected bands with and without wavy lines and some sherds have incised wavy and horizontal lines, usually under the rim and around the neck.

Origin: Local?

Sites: CS.2.55.1= 10 sherds (P00211–P00222); CS.1.5.1= 9 sherds (P00312 & P02246–P02253); CS.2.68= 2 sherds (P00494–P00495); CS.2.50.2, Tomb 2= 4 sherds (P00623–P00626); CS.2.62= 17 sherds (P00758–P00774); CS.3.1.2= 18 sherds (P00922–P00939); CS.1.5.4= 4 sherds (P00993–P00997); CS.1.5.2= 44 sherds (P01042–P01085); CS.3.1.3 = 73 sherds (P01097–P01167 & P06049–P06050); CS.9.1.2 = 27 sherds (P01230–P01256); CS.2.53.1= 34 sherds (P01319–P01360); CS.2.43.3= 3 sherds (P01362–P01364); CS.9.1.5= 56 sherds (P01547–P01602); CS.9.1.6= 8 sherds (P01660–P01667); CS.2.24= 34 sherds (P01759–P01792); CS.3.7.3= 39 sherds (P01793–P01799 & P05974–P06005); CS.5.1.3= 12 sherds (P01848–P01859); CS.3.1.4 = 74 sherds (P01906–P01952 & P01972–P01998); CS.4.1.1 = 11 sherds (P02022–P02032); CS.3.5.2= 24 sherds (P02067–P02090); CS.1.5.6= 16 sherds (P02113–P02135); CS.1.5.5= 3 sherds (P02285–P02287); CS.2.53.2= 7 sherds (P02313–P02319); CS.5.1.4= 14 sherds (P02355–P02368); CS.4.1.6= 41 sherds (P02568–P02592 & P02619–P02634); CS.4.1.5= 9 sherds (P02749–P02757); CS.3.5.3= 37 sherds (P02894–P02924 & P05045–P05050); CS.2.41.9 = 12 sherds (P02935–P02946); CS.3.5.1= 12 sherds (P03225–P03236); CS.3.1.1= 34 sherds (P03270–P03303); CS.4.2= 28 sherds (P03336–P03363); CS.9.6= 82 sherds (P03422–P03500 & P06074–P06076); CS.9.10= 45 sherds (P03585–P03624 & P03633–P03637); CS.4.12.1= 10 sherds (P03658–P03667); CS.3.7.5= 13 sherds (P03713–P03725); CS.9.1.4= 11 sherds (P03905–P03915); CS.3.1.5 = 41 sherds (P03969–P04009); CS.9.1.7= 17 sherds (P04014–P04030); CS.4.1.4= 37 sherds (P04226–P04262); CS.2.50.5= 15 sherds (P04414–P04428); CS.4.1.3= 54 sherds (P04690–P04743); CS.1.5= 9 sherds (P04798–P04806); CS.9.1.3= 21 sherds (P04817–P04837); CS.9.4= 21 sherds (P05038 & P06090–P06109); CS.2.50.1= 3 sherds (P06084–P06086)

Total sherds: 1103 sherds

Figures: 150 (A–H); 151 (A–F); 153 (A–J); 154 (A–H)

Plates: 423 (A–F); 424 (A–H); 425 (A–F); 426 (C–D)

Parallels: Kush: Cream pots with incised wavy decoration (Kennet 2004: 64; figs.39, pp: 133)

Class Code: FWMI

Class Name: Fine Ware Middle Islamic

Period: M.Islamic

Description: Thin plain red fine ware with smooth fracture and hard firing. The surface is red (Munsell 2.5YR, 6/8), and the core is red (Munsell 2.5YR, 6/8) to light gray (Munsell 10R, 7/1) with gray rounded inclusions of up to 1.5 mm size and covers 2% of the sherd. Walls' thickness is c.1–8 mm

Origin: Iran?

Sites: CS.9.1.2= 1 sherd (P01257); CS.2.43.3= 1 sherd (P01365); CS.9.1.7= 4 sherds (P04042–P04045); CS.9.6= 1 sherd (P06083)

Total sherds: 7 sherds

Parallels: Kush: Small Grey vessels (Kennet 2004: 63; fig.37, pp: 131

Class Code: SGRF

Class Name: Sgraffiato Middle Islamic

Period: M.Islamic

Description: This type of ware is well-known and described in the literature. D. Kennet (2004: 34) describes this ware as “the decorative technique of incising linear designs through a white slip before glazing. Most often, especially in the later periods, the slip is white or cream and the body is red, causing the incisions to stand out as a darker colour. The pattern created by the incised lines is sometimes filled with patches of coloured glaze—green, brown and yellow.” He argues (*ibid*: 34) that by the early 10th century the Sgraffiato technique has started in southern Iraq, and by the 11th–12th centuries it become common and well-known technique over a large area such as Iran, Afghanistan, Egypt, Syria, Northern Iraq, Central Asia and Byzantium. He also argues that at the beginning of the 13th century the technique reached to Europe via Northern Italy (Kennet 2004: 34).

This earthenware is fine to medium–coarse with smooth fracture and medium firing. The surface is usually glazed with different coloured glaze ranging between green; white, light green, olive, yellow, brown and yellowish–green. The glaze thickness varies between 1 mm and 5 mm and can be found either on both surfaces (interior and exterior) or on the interior surface only. The original surface and the core are red (Munsell 2.5YR, 6/8) to

pink (Munsell 7.5YR, 8/3). Walls' thickness is c.1 mm to 1 cm. Decoration includes incisions, slip and glaze, forming geometric and floral motifs

Origin: Iraq? Iran?

Sites: CS.9.5= 3 sherds (P00140–P00142); CS.2.62= 1 sherd (P00226); CS.2.50.1= 5 sherds (P00285–P00289); CS.9.1.6= 11 sherds (P00367–P00374 & P15532–P15534); CS.4.1.3= 1 sherd (P00379); CS.1.5.2= 20 sherds (P00520–P00529 & P11964–P11973); CS.1.4= 1 sherd (P00437); CS.2.55.1= 1 sherd (P00830); CS.9.4= 56 sherds (P02164–P02209 & P05713–P05722); CS.1.5.5= 2 sherds (P02808–P02809); CS.2.50.2= 3 sherds (P06906 & P13344–P13345); CS.4.1.6= 4 sherds (P07590–P07593); CS.3.5.2= 1 sherd (P07878); CS.2.69.2.1= 3 sherds (P07926–P07928); CS.9.6= 96 (P07945–P07992 & P17017–P17064); CS.2.68= 2 sherds (P08050 & P13722); CS.4.1.1= 1 sherd (P08059); CS.1.5.4= 3 sherds (P08157–P08159); CS.2.3= 1 sherd (P08476); CS.3.1.5= 8 sherds (P09503–P09510); CS.4.1.2= 1 sherd (P10531); CS.4.1.4= 6 sherds (P11043–P11047 & P19077); CS.4.1.5= 4 sherds (P11275–P11276 & P11277–P11278); CS.4.4= 1 sherd (P11578); CS.4.12.1= 1 sherd (P11715); CS.2.43.1= 3 sherds (P13303–P13305); CS.9.1.1= 9 sherds (P13953–P13961); CS.9.1.3= 2 sherds (P14735–P14736); CS.9.1.7= 1 sherd (P15859); CS.9.2.1= 1 sherd (P16217); CS.9.2.2= 1 sherd (P16281); CS.9.10= 2 sherds (P17453–P17454)

Total sherds: 256 sherds

Figures: 152 (F); 155 (C, H–J, L)

Plates: 430; 431

Parallels: Kush (Kennet 1997: 292–294, figs, 7.9–11, 8, 9 & 2004: figs.7–9, pp.104–106; CPs.3–8, pp: 145–146); Sohar (Kervran 2004: fig.29, no.12, pp: 317; fig.33, nos.1–3, pp:322; fig.44, nos.8–14, pp: 324; fig.35, no.2, pp: 326; fig.36, nos.5–13, pp: 328; plate.27, pp:363); Ras al–Hadd 3 (Whitcomb 1975: fig.4B pp: 135)

C.1.7– LATE ISLAMIC PERIOD:

Class Code: JULFAR

Class Name: Julfar Ware

Period: L.Islamic

Description: This is well-known and described coarse hand-made earthenware with smooth fracture and medium firing. It is always unglazed and manufactured for cooking

vessels. The surface is black, grey and red with brown and grey rounded and angular inclusions of c.1 mm to 1 cm in size and covers 2% to 6% of the sherd. Walls' thickness is c.1–8 mm. Decoration often include incised horizontal and wavy lines and projected bands with and without incised decoration.

Origin: local made, Ras al-Khaimah (Julfar)

Sites: CS.4.12.2= 12 sherds (P00235–P00246); CS.4.1.3= 50 sherds (P00382 & P10755–P10803); CS.5.10, Tomb 5= 2 sherds (P04542–P04543); CS.3.5.2= 44 sherds (P06132–P06134 & P09810–P09850); CS.2.62= 11 sherds (P07540–P13549); CS.1.1= 3 sherds (P08071–P08073); CS.1.2.2= 9 sherds (P08075–P08083); CS.1.5.4= 21 sherds (P08136–P08156); CS.1.5.5= 24 sherds (P08230–P08253); CS.1.5.6= 24 sherds (P08354–P08377); CS.1.6= 7 sherds (P08416–P08422); CS.2.3= 36 sherds (P08434–P08469); CS.2.6= 15 sherds (P08507–P08521); CS.3.1.1= 44 sherds (P08606–P08649); CS.3.1.2= 29 sherds (P08763–P08791); CS.3.1.3= 68 sherds (P09030–P09097); CS.3.1.4= 59 sherds (P09260–P09318); CS.3.1.5= 74 sherds (P09405–P09478); CS.3.1.6= 31 sherds (P09526–P09556); CS.3.5.1= 63 sherds (P09656–P09718); CS.3.5.3= 50 sherds (P09969–P10018); CS.3.7.1= 3 sherds (P10037–P10039); CS.3.7.3= 81 sherds (P10116–P10196); CS.3.7.5= 28 sherds (P10287–P10314); CS.3.8= 28 sherds (P10393–P10420); CS.4.1.1= 78 sherds (P10479–P10496 & P18861–P18920); CS.4.1.2= 6 sherds (P10532–P10537); CS.4.1.4= 53 sherds (P10965–P10982 & P19038–P19072); CS.4.1.5= 24 sherds (P11200–P11223); CS.4.1.6= 24 sherds (P11476–P11499); CS.4.12.1= 24 sherds (P11684–P11707); CS.4.14, Tomb 3= 28 sherds (P11758–P11785); CS.1.5.1= 33 sherds (P11819–P11851); CS.1.5.2= 60 sherds (P12004–P12063); CS.5.1.1= 9 sherds (P12119–P12127); CS.5.1.2= 31 sherds (P12251–P12281); CS.5.1.2.1= 52 sherds (P12416–P12467); CS.5.1.3= 86 sherds (P12677–P12762); CS.5.1.4= 18 sherds (P12874–P12891); CS.5.1.5= 25 sherds (P12956–P12980); CS.5.2.5= 2 sherds (P13078–P13079); CS.5.8= 45 sherds (P13119–P13163); CS.2.41.9= 5 sherds (P13224–P13228); CS.2.41.10= 13 sherds (P13276–P13288); CS.2.43.1= 2 sherds (P13299–P13300); CS.2.43.3= 9 sherds (P13316–P13324); CS.2.48= 2 sherds (P13336–P13337); CS.2.50.5= 4 sherds (P13368–P13371); CS.2.51.8.4= 6 sherds (P13391–P13396); CS.2.52.4= 6 sherds (P13402–P13407); CS.2.52.5= 2 sherds (P13415–P13416); CS.2.52.6= 8 sherds (P13430–P13437); CS.2.54= 3 sherds (P13455–P13457); CS.2.55.1= 4 sherds (P13480–P13483); CS.2.57= 7 sherds (P13514–P13520); CS.2.62= 11 sherds (P07540–P07549); CS.2.64= 1 sherd (P13605); CS.2.67= 7 sherds (P13629–P13635); CS.2.67.29= 2 sherds (P13720–P13721); CS.9.1.1=

83 sherds (P13824–P13906); CS.9.1.2= 75 sherds (P14180–P14254); CS.9.1.3= 93 sherds (P14596–P14688); CS.9.1.4 = 55 sherds (P14867–P14921); CS.9.1.5= 84 sherds (P15115–P15198); CS.9.1.6= 107 sherds (P15377–P15483); CS.9.1.7= 95 sherds (P15670–P15764); CS.9.1.8 = 80 sherds (P15906–P15985); CS.9.2.1= 60 sherds (P16135–P16194); CS.9.2.2= 36 sherds (P16286–P16321); CS.9.4= 24 sherds (P16476–P16499); CS.9.5= 115 sherds (P16648–P16762); CS.9.6= 112 sherds (P16857–P16968); CS.9.8= 80 sherds (P17092–P17171); CS.9.10= 112 sherds (P17283–P17394); CS.2.24= 25 sherds (P17663–P17687); CS.6, Tomb 6= 7 sherds (P17715–P17721); CS.5.1.6= 26 sherds (P17769–P17794); CS.5.10, Tomb 2= 38 sherds (P17834–P17871); CS.7.1.1= 64 sherds (P17950–P18013); CS.7.1.2= 121 sherds (P18143–P18263); CS.7.1.3= 84 sherds (P18405–P18488); CS.7.1.4 = 66 sherds (P18578–P18643); CS.7.1.5= 41 sherds (P18764–P18804)

Total sherds: 3178 sherds

Figures: 165 (A–B)

Plates: 432

Parallels: Kush and al–Mataf (Kennet 2004: 53–56; figs.19–25, pp: 116–122)

Class Code: COMBED

Class Name: Combed Ware

Period: L.Islamic

Description: Thin, light coarse ware with combed or rope prints decoration that cover the whole body. The fabric has smooth fracture and medium firing. The surface colours are either white or gray. Walls' thickness is c.1 mm to 8 cm.

Origin: Local

Sites: CS.9.10= 35 sherds (P00430 & P17395–P17428); CS.9.5= 45 sherds (P00655–P00667 & P16763–P16794); CS.7.1.4= 36 sherds (P00672–P00676 & P18647–P18677); CS.3.1.2= 48 sherds (P06142–P06148 & P08722–P08762); CS.1.5= 1 sherd (P08084); CS.1.5.4= 16 sherds (P08107–P08122); CS.1.5.5= 42 sherds (P08188–P08229); CS.1.5.6= 21 sherds (P08299–P08319); CS.2.3= 1 sherd (P08478); CS.3.1.1= 36 sherds (P08558–P08593); CS.3.1.2 = 48 sherds (P06142–P06148 & P08722–P08762); CS.3.1.3 = 55 sherds (P08975–P09029); CS.3.1.4= 58 sherds (P09202–P09259); CS.3.1.5= 4 sherds (P09401–P09404); CS.3.5.1= 33 sherds (P09623–P09655); CS.3.5.2= 32 sherds (P09769–P09800); CS.3.5.3= 18 sherds (P09951–P09968); CS.3.7.3= 52 sherds (P10064–P10115);

CS.3.7.5 = 27 sherds (P10260–P10286); CS.4.1.5= 43 sherds (P11157–P11199); CS.4.1.6= 77 sherds (P11399–P11475); CS.4.4= 4 sherds (P11574–P11577); CS.4.12.1= 15 sherds (P11669–P11683); CS.1.5.1= 16 sherds (P11801–P11816); CS.1.5.2 = 30 sherds (P11974–P12003); CS.5.1.1= 2 sherds (P12128–P12129); CS.5.1.2= 18 sherds (P12233–P12250); CS.5.1.2.1= 23 sherds (P12390–P12412); CS.5.1.3= 51 sherds (P12620–P12670); CS.5.1.4= 6 sherds (P12892–P12897); CS.5.1.5= 35 sherds (P12981–P13015); CS.5.8= 27 sherds (P13092–P13118); CS.2.41.9= 2 sherds (P13229–P13230); CS.2.41.10= 1 sherd (P13275); CS.2.43.1= 2 sherds (P13301–P13302); CS.2.43.2= 2 sherds (P13309–P13310); CS.2.43.3= 1 sherd (P13325); CS.2.50.5= 7 sherds (P13361–P13367); CS.2.52.5= 1 sherd (P13417); CS.2.52.6= 7 sherds (P13423–P13429); CS.2.54= 1 sherd (P13458); CS.2.55.1= 7 sherds (P13473–P13479); CS.2.55.4= 3 sherds (P13494–P13496); CS.2.62= 8 sherds (P13550–P13557); CS.2.69.1.4= 2 sherds (P13723–P13724); CS.2.69.3.1= 1 sherd (P13740); CS.9.1.1= 46 sherds (P13907–P13952); CS.9.1.2= 51 sherds (P14255–P14305); CS.9.1.3= 49 sherds (P14547–P14595); CS.9.1.4= 28 sherds (P14922–P14949); CS.9.1.5 = 52 sherds (P15199–P15250); CS.9.1.6= 38 sherds (P15488–P15525); CS.9.1.7= 54 sherds (P15765–P15818); CS.9.1.8= 63 sherds (P15986–P16048); CS.9.2.1= 10 sherds (P16195–P16204); CS.9.2.2= 15 sherds (P16322–P16336); CS.9.6= 48 sherds (P16969–P17016); CS.2.24= 2 sherds (P17688–P17689); CS.6, Tomb 6= 21 sherds (P17694–P17714); CS.5.1.6= 30 sherds (P17795–P17824); CS.5.10, Tomb 9= 12 sherds (P17891–P17902); CS.7.1.1= 28 sherds (P18014–P18041); CS.7.1.2= 48 sherds (P18264–P18311); CS.7.1.3= 23 sherds (P18508–P18530); CS.7.1.5= 20 sherds (P18744–P18763); CS.4.1.1= 37 sherds (P10452–P10478 & P18921–P18930); CS.4.1.2= 11 sherds (P10520–P10530); CS.4.1.3= 70 sherds (P10685–P10754); CS.4.1.4= 67 sherds (P10913–P10964 & P19023–P19037);

Total sherds: 1775 sherds

Plates: 433

Parallels: Sohar excavation (Kervran 2004: fig. 9, Nos. 7–8, pp: 274 & fig.10, Nos.10–11, pp: 277) & Surface pottery from Kashm Nadir in northern Oman (de Cardi & Doe 1971: figs.15, No. 77: & 50, No.1)

Class Code: CBW

Class Name: Chinese Blue and White Porcelain

Period: L.Islamic

Description: This class of porcelain is well-known. Kennet (2004: 51) describes it as "... a well-established class of porcelain. It is covered with a transparent lime-alkali glaze and decorated with underglaze cobalt. It is possible to sub-divide and date CBW based on the style of decoration...". The ware includes small white and brown grits. Walls' thickness is c.1 mm to 1 cm.

Origin: China

Sites: CS.9.5= 10 sherds (P00121–P00130); CS.2.62= 1 sherd (P00225); CS.3.1.3= 12 sherds (P00247–P00252 & P09098–P09103); CS.7.1.2= 5 sherds (P00298–P00299 & P00302–P00304); CS.9.1.6= 6 sherds (P00357–P00362); CS.4.1.3= 3 sherds (P00375–P00377); CS.9.10= 7 sherds (P00403–P00408 & P00426); CS.1.4= 2 sherds (P00431–P00432); CS.1.5.2= 11 sherds (P00510–P00515 & P11954–P11958); CS.3.7.1= 11 sherds (P00737–P00747); CS.2.55.1= 3 sherds (P00833–P00835); CS.4.12.2= 5 sherds (P01409–P01413); CS.9.4= 2 sherds (P02210–P02211); CS.7.1.4= 4 sherds (P02773–P02776); CS.1.5.5= 5 sherds (P02815 & P08064–P08067); CS.4.1.1= 9 sherds (P07559–P07560 & P08051–P08057); CS.4.1.6= 3 sherds (P07602–P07604); CS.2.24= 1 sherd (P07616); CS.5.1.6= 5 sherds (P07768–P07772); CS.3.5.2= 7 sherds (P07887–P07893); CS.9.6= 4 sherds (P07996–P07999); CS.3.1.5= 1 sherd (P09492); CS.5.1.2.1= 6 sherds (P12468–P12473); CS.5.1.3= 7 sherds (P12763–P12765 & P12800–P12803); CS.5.1.4= 1 sherd (P12898); CS.5.1.5= 1 sherd (P13024); CS.5.8= 7 sherds (P13164–P13170); CS.2.43.1= 1 sherd (P13306); CS.9.1.1= 4 sherds (P13968–P13971); CS.9.1.2= 8 sherds (P14306–P14313); CS.9.1.3= 1 sherd (P14722); CS.9.1.5= 2 sherds (P15260–P15261); CS.9.1.7= 8 sherds (P15829–P15836); CS.9.2.1= 7 sherds (P16205–P16211); CS.9.2.2= 2 sherds (P16279–P16280); CS.7.1.1= 1 sherd (P18042)

Total sherds: 175 sherds

Figures: 164 (A–G); 165 (C)

Plates: 434

Parallels: Kush and al-Mataf (Kennet 2004: 51–52) & Surface collection from Northern Oman (de Cardi & Doe 1971: figs. 12, Nos.1–16, pp: 261; figs. 45–47)

Class Code: BAHLA

Class Name: Bahla Ware

Period: L.Islamic

Description: Medium coarse, well-fired glazed earthenware with conchoidal fracture. The original surface and core are pale yellow to a light grey and a pinky red. The glaze is often on both the interior and exterior surfaces and sometimes on the interior only. This glaze varies in colour between green, light-green, olive, brown, greenish-brown and black. It could also be blue (see below BBAHW). Walls' thickness varies from 1 mm to 2 cm.

Origin: Local-made, Bahla

Sites: CS.3.1.3= 103 sherds (P00029–P00038 & P08882–P08974); CS.4.12.2= 1 sherd (P00234); CS.7.1.3= 22 sherds (P00290–P00291 & P18385–P18404); CS.4.1.3= 65 sherds (P00383–P00388 & P10626–P10684); CS.9.10= 112 sherds (P00427–P00429 & P17174–P17282); CS.1.4= 1 sherd (P00438); CS.9.5= 87 sherds (P00668–P00670 & P16564–P16647); CS.7.1.4= 32 sherds (P00671 & P18547–P18577); CS.2.51.7.2= 1 sherd (P01508); CS.5.10, Tomb 27= 6 sherds (P02296–P02301); CS.3.2= 1 sherd (P04302); CS.4.12.1= 41 sherds (P06114–P06126 & P11641–P11668); CS.3.5.2= 42 sherds (P06128–P06131, P07879–P07886 & P09739–P09768); CS.1.5.6= 39 sherds (P06149–P06150 & P08262–P08298); CS.4.1.1= 65 sherds (P06151–P06152, P10421–P10445 & P18823–P18860); CS.2.52.3= 1 sherd (P06451); CS.5.2.2= 1 sherd (P07233); CS.2.61= 2 sherds (P07274–P07275); CS.2.57= 7 sherds (P07307–P07313); CS.2.62= 20 sherds (P07536–P07539 & P13525–P13540); CS.2.54= 3 sherds (P07542 & P13453–P13454); CS.2.43.1= 5 sherds (P07544 & P13295–P13298); CS.2.24= 1 sherd (P07617); CS.5.1.6= 23 sherds (P07766–P07767 & P17748–P17768); CS.7.2= 6 sherds (P07795–P07800); CS.2.60= 1 sherd (P07877); CS.9.6= 62 sherds (P08017–P08035 & P16814–P16856); CS.1.5.4= 7 sherds (P08085–P08091); CS.1.5.5= P08160–P08187); CS.1.6= 8 sherds (P08408–P08415); CS.2.3= 1 sherd (P08477); CS.2.6= 3 sherds (P08504–P08506); CS.3.1.1= 36 sherds (P08522–P08557); CS.3.1.2 = 76 sherds (P06135–P06141 & P08653–P08721); CS.3.1.4 = 68 sherds (P09134–P09201); CS.3.1.5= 43 sherds (P09358–P09400); CS.3.1.6= 7 sherds (P09511–P09517); CS.3.5.1= 54 sherds (P09569–P09622); CS.3.5.3= 50 sherds (P09883–P09932); CS.3.7.3= 24 sherds (P10040–P10063); CS.3.7.5 = 29 sherds (P10231–P10259); CS.3.8= 16 sherds (P10377–P10392); CS.4.1.2= 2 sherds (P10518–P10519); CS.4.1.4= 84 sherds (P10868–P10912 & P18984–P19022); CS.4.1.5= 20 sherds (P11137–P11156); CS.4.1.6= 46 sherds (P11353–P11398); CS.4.4= 1 sherd (P11573); CS.4.5= 1 sherd (P11592); CS.1.5.1= 13 sherds (P11788–P11800); CS.1.5.2= 54 sherds (P11900–P11953); CS.5.1.1 = 2 sherds (P12117–P12118); CS.5.1.2= 46 sherds (P12187–P12232); CS.5.1.2.1= 37 sherds (P12353–P12389); CS.5.1.3= 104 sherds

(P12497–P12600); CS.5.1.4= 41 sherds (P12833–P12873); CS.5.1.5= 28 sherds (P12928–P12955); CS.5.2.5= 3 sherds (P13075–P13077); CS.5.8= 9 sherds (P13083–P13091); CS.2.41.10= 5 sherds (P13270–P13274); CS.5.9= 4 sherds (P13205–P13208); CS.2.43.2= 1 sherd (P13308); CS.2.43.3= 5 sherds (P13311–P13315); CS.2.48= 2 sherds (P13338–P13339); CS.2.50.2= 2 sherds (P13342–P13343); CS.2.50.5= 14 sherds (P13347–P13360); CS.2.51.8.3= 6 sherds (P13385–P13390); CS.2.51.8.14= 1 sherd (P13397); CS.2.52.4= 3 sherds (P13399–P13401); CS.2.52.5= 6 sherds (P13409–P13414); CS.2.52.6= 5 sherds (P13418–P13422); CS.2.55.1= 6 sherds (P13467–P13472); CS.2.55.4= 3 sherds (P13491–P13493); CS.2.56.7= 3 sherds (P13510–P13512); CS.2.63= 1 sherd (P13591); CS.2.64= 2 sherds (P13603–P13604); CS.9.1.1= 83 sherds (P13741–P13823); CS.9.1.2= 94 sherds (P14086–P14179); CS.9.1.3= 152 sherds (P14395–P14546); CS.9.1.4= 84 sherds (P14783–P14866); CS.9.1.5= 119 sherds (P14996–P15114); CS.9.1.6= 56 sherds (P15321–P15376); CS.9.1.7= 80 sherds (P15590–P15669); CS.9.1.8= 46 sherds (P15860–P15905); CS.9.2.1= 38 sherds (P16097–P16134); CS.9.2.2= 39 sherds (P16236–P16274); CS.9.4= 4 sherds (P16500–P16503); CS.9.8= 12 sherds (P17080–P17091); CS.5.7= 1 sherd (P17693); CS.6, Tomb 6= 2 sherds (P17725–P17726); CS.5.10, Tomb 2= 4 sherds (P17872–P17875); CS.5.10, Tomb 13= 4 sherds (P17916–P17919); CS.7.1.1= 30 sherds (P17920–P17949); CS.7.1.2= 66 sherds (P18077–P18142); CS.7.1.3= 22 sherds (P00290–P00291 & P18385–P18404); CS.7.1.5= 19 sherds (P18725–P18743)

Total sherds: 2693 sherds

Figures: 159 (A–D); 160 (A–F); 161 (A–B); 162 (A–H); 163 (A–C)

Plates: 435; 436; 437;

Parallels: Whitcomb 1975: 129; al–Mataf: KHUNJ (Kennet 2004: 42–43)

Class Code: BBAHW

Class Name: Blue Bahla Ware

Period: L.Islamic

Description: This class is similar to the Bahla Ware (BAHLA) but it is distinguished by its blue glaze that covers both the interior and the exterior surfaces. It is coarse ware with smooth fracture and medium firing. The fabric original surface is light red (Munsell 2.5YR, 7/6), and the core is light red (Munsell 2.5YR, 7/6). Walls' thickness is c.3 mm to 1 cm. This class has only found on one site (CS.4.1.1) in al–Qaryatain village, and it has

not been recorded at any other site, at least within the surveyed area. The sherds might belong to one single large open-mouthed jar.

Origin: Local-made, Bahla

Sites: CS.4.1.1= 10 sherds (P00076–P00079 & P10446– P10451)

Total sherds: 10 sherds

Plates: 438

Parallels: No parallels with the blue colour but the fabric is similar to the above indicated Bahla ware with parallels from al-Mataf (Kennet 2004: 42–43)

Class Code: CELADON

Class Name: Celadon Stone Ware

Period: L.Islamic

Description: This ware is well-defined through the literature as “Longquan Celadon”. Kennet (2004: 49) states that “Longquan Celadon has a good quality, light grey stoneware body covered in a thick green glaze that often crazes very finely. There is some variation in the fabric and glaze colour. This is a well-established class of ceramic that was widely exported to the Western Indian Ocean, the Near East, and the Mediterranean ...”. Walls’ thickness is c1–8 mm.

Origin: imported, China

Sites: CS.2.62= 2 sherds (P00224 & P13574); CS.1.5.5= 2 sherds (P08068 & P08258)

Total sherds: 4 sherds

Parallels: Kush (Kennet 2004: fig.18, pp: 115)

Class Code: ENAML

Class Name: Enamelled Chinese Porcelain

Period: L.Islamic

Description: Chinese porcelain fired under certain low degrees of temperatures and includes a very fine red-coloured enamelled decoration over thick or transparent glazes (Kennet 2004: 52). Walls’ thickness is 1 mm to 1 cm.

Origin: imported, China

Sites: CS.1.5.5= 1 sherd (P08259); CS.1.5.2= 1 sherd (P11963); CS.3.1.1= 1 sherd (P08650)

Total sherds: 3 sherds

Parallels: Al-Mataf (Kennet: 2004: 52).

Class Code: MISLAM–LISLAM

Class Name: M.Islamic to L.Islamic

Period: M.Islamic to L.Islamic

Description: This class includes all the coarse wares that bear similar characteristics of both Middle Islamic and Late Islamic periods in which it was difficult to assign them with certainty to any of these two periods. Thus, they were classified under the broader chronological period between both Middle Islamic and Late Islamic.

Origin: Local?

Sites: CS.2.52.4= 1 sherd (P02871); CS.2.62= 34 sherds (P03098–P03115 & P13575–P13590); CS.9.5= 31 sherds (P03180–P03210); CS.2.41.3= 6 sherds (P13209–P13214); CS.2.41.9= 39 sherds (P13231–P13269); CS.2.63= 5 sherds (P13592–P13596); CS.9.1.1= 98 sherds (P13988–P14085); CS.9.1.2= 34 sherds (P14361–P14394); CS.9.1.8 = 42 sherds (P16055–P16096); CS.9.2.1= 18 sherds (P16218–P16235); CS.9.2.2= 106 sherds (P16339–P16444); CS.7.1.2= 46 sherds (P18339–P18384)

Total sherds: 460 sherds

Parallels: ?

C.1.8– RECENT:

Class Code: EUROP

Class Name: European Porcelain

Period: Recent

Description: This class describes a recent type of porcelain that had been manufactured in Europe. The tradition might be developed from the Far Eastern porcelain. This class was largely produced and exported to widespread area, including the Oman Peninsula in which it had been used until the late 1970s. It is decorated with painted and glazed geometric and floral motifs. The ware itself is thin and medium fired with smooth fracture. Walls' thickness is c.1–8 mm.

Origin: Europe

Sites: CS.9.5= 7 sherds (P00143–P00149); CS.2.62= 2 sherds (P00227–P00228); CS.7.1.2= 6 sherds (P00305–P00310); CS.9.1.6= 4 sherds (P00363–P00366); CS.1.4= 4 sherds (P00433–P00436); CS.2.55.1= 2 sherds (P00836–P00837); CS.5.13, Tomb 1= 2

sherds (P00889–P00890); CS.7.1.4= 3 sherds (P04181–P04183); CS.4.1.1= 17 sherds (P07545–P07558 & P08061–P08063); CS.4.1.6= 1 sherd (P07605); CS.4.1.5= 38 sherds (P07637–P07674); CS.5.1.6= 1 sherd (P07765); CS.7.1.3= 3 sherds (P07847–P07840); CS.2.57= 1 sherd (P07930); CS.9.6= 2 sherds (P08000–P08001); CS.3.1.4= 1 sherd (P09357); CS.4.5= 4 sherds (P11622–P11625); CS.5.1.2.1= 2 sherds (P12476–P12477); CS.5.1.3= 6 sherds (P12781–P12786); CS.5.1.4= 1 sherd (P12914); CS.5.1.5= 3 sherds (P13034–P13036); CS.5.8= 4 sherds (P13177–P13180); CS.2.55.4= 2 sherds (P13503–P13504); CS.9.1.1= 3 sherds (P13972–P13974); CS.9.1.2= 2 sherds (P14358–P14359); CS.9.1.7= 3 sherds (P15826–P15828); CS.9.2.1= 3 sherds (P16212–P16214); CS.9.2.2= 4 sherds (P16275–P16278); CS.9.10= 1 sherd (P17455); CS.7.1.1= 3 sherds (P18043–P18045); CS.4.1.4= 4 sherds (P19073–P19076)

Total sherds: 139 sherds

Plates: 439

Parallels: Kush and al–Mataf (Kennet 2004: 44).

Class Code: MODERN

Class Name: Modern Porcelain

Period: Recent

Description: This class belongs to the most recent Far Eastern porcelain types, and it is often decorated with transfers (Kennet 2004: 52). It is largely produced and imported to widespread area, including the Oman Peninsula in which has been used for long time even until recent times. Walls' thickness is c.1 mm to 1 cm.

Origin: Far East origin (mainly Japan in the 20th century)

Sites: CS.4.1.1= 32 sherds (P00080–P00083, P07563–P07589 & P08058); CS.9.5= 3 sherds (P00131–P00133); CS.2.62= 5 sherds (P00229–P00233); CS.7.1.2= 8 sherds (P00292–P00297 & P00300–P00301); CS.1.5.1= 6 sherds (P00318–P00323); CS.4.1.3= 1 sherd (P00378); CS.9.10= 2 sherds (P00409 & P17452); CS.1.5.2= 8 sherds (P00516–P00519 & P11959–P11962); CS.4.12.2= 1 sherd (P01407); CS.1.5.5= 2 sherds (P02807 & P08069); CS.5.2.4= 1 sherd (P06341); CS.4.1.6= 10 sherds (P07606–P07615); CS.2.24= 19 sherds (P07618–P07636); CS.4.1.5= 70 sherds (P07675–P07744); CS.5.1.6= 16 sherds (P07749–P07764); CS.7.2= 21 sherds (P07773–P07793); CS.7.1.3= 14 sherds (P07855–P07868); CS.2.60= 4 sherds (P07873–P07876); CS.3.5.2= 32 sherds (P07894–P07925); CS.2.57= 14 sherds (P07931–P07944); CS.9.6= 3 sherds (P07993–P07995); CS.1.5.4= 13

sherds (P08123–P08135); CS.1.5.6 = 28 sherds (P08378–P08405); CS.2.3= 6 sherds (P08470–P08475); CS.3.1.4= 2 sherds (P09355–P09356); CS.3.1.5= 8 sherds (P09479–P09486); CS.3.1.6= 2 sherds (P09518–P09519); CS.3.7.3= 1 sherd (P10219); CS.4.1.4= 4 sherds (P11048–P11051); CS.4.12.1= 1 sherd (P11716); CS.5.1.1 = 7 sherds (P12136–P12142); CS.5.1.2= 11 sherds (P12293–P12303); CS.5.1.2.1= 2 sherds (P12474–P12475); CS.5.1.3= 15 sherds (P12766–P12780); CS.5.1.4= 5 sherds (P12909–P12913); CS.5.1.5= 6 sherds (P13028–P13033); CS.2.43.3= 1 sherd (P13330); CS.2.52.4= 1 sherd (P13408); CS.2.64= 2 sherds (P13606–P13607); CS.9.1.1= 1 sherd (P13975); CS.9.1.2= 1 sherd (P14360); CS.9.1.6= 1 sherd (P15535); CS.9.1.7= 3 sherds (P15837–P15839); CS.9.2.1= 1 sherd (P16215); CS.9.4= 1 sherd (P16507); CS.9.8= 2 sherds (P17172–P17173); CS.7.1.1= 13 sherds (P18046–P18058); CS.7.1.4= 3 sherds (P18644–P18646)

Total sherds: 413 sherds

Plates: 440

Parallels: Al–Mataf (Kennet 2004: 52–53)

Class Code: WHW

Class Name: White Ware

Period: L.Islamic to Recent?

Description: Thin, medium–fired coarse unglazed earthenware with smooth fracture. The surface is light yellow to creamy white and the core is light gray to yellow with white, brown and gray small rounded inclusions of c.1–2 mm in size and covers 1% of the body sherd. Decoration includes incised wavy and horizontal lines. Walls' thickness is c.1–6 mm.

Origin: Iran & Iraq? Local?

Sites: CS.5.2.5= 4 sherds (P07543 & P13080–P13082); CS.7.2= 46 sherds (P07801–P07846); CS.1.5.4= 15 sherds (P08092–P08106); CS.1.5.5= 2 sherds (P08256–P08257); CS.1.5.6= 34 sherds (P08320–P08353); CS.1.8= 5 sherds (P08423–P08427); CS.3.1.1= 6 sherds (P08600–P08605); CS.3.1.2= 8 sherds (P08792–P08799); CS.3.1.3= 17 sherds (P09104–P09120); CS.3.1.4= 11 sherds (P09338–P09348); CS.3.1.5= 10 sherds (P09493–P09502); CS.3.1.6 = sherds (P09520–P09524); CS.3.5.1= 16 sherds (P09719–P09734); CS.3.5.2= 9 sherds (P09801–P09809); CS.3.5.3= 18 sherds (P09933–P09950); CS.3.7.3= 22 sherds (P10197–P10218); CS.3.7.5= 8 sherds (P10336–P10343); CS.4.1.1= 4 sherds (P10497–P10500); CS.4.1.2= 1 sherd (P10538); CS.4.1.3= 7 sherds (P10804–P10810);

CS.4.1.4 = 54 sherds (P10983–P11034 & P19082–P19083); CS.4.1.5 = 51 sherds (P11224–P11274); CS.4.1.6= 10 sherds (P11500–P11509); CS.4.5= 29 sherds (P11593–P11621); CS.4.12.1= 13 sherds (P11717–P11729); CS.1.5.1= 2 sherds (P11817–P11818); CS.5.1.1= 6 sherds (P12130–P12135); CS.5.1.2= 11 sherds (P12282–P12292); CS.5.1.3 = 19 sherds (P12601–P12619); CS.5.1.4= 7 sherds (P12902–P12908); CS.5.1.5= 3 sherds (P13025–P13027); CS.2.50.5= 2 sherds (P13373–P13374); CS.2.55.1= 4 sherds (P13487–P13490); CS.2.55.4= 3 sherds (P13500–P13502); CS.2.56.7= 1 sherd (P13513); CS.2.62= 2 sherds (P13572–P13573); CS.9.1.1= 2 sherds (P13986–P13987); CS.9.1.2= 20 sherds (P14338–P14357); CS.9.1.3= 22 sherds (P14689–P14710); CS.9.1.4= 16 sherds (P14950–P14965); CS.9.1.5= 10 sherds (P15271–P15280); CS.9.1.6 = 4 sherds (P15484–P15487); CS.9.1.7= 12 sherds (P15847–P15858); CS.9.1.8= 2 sherds (P16053–P16054); CS.9.2.2= 2 sherds (P16337–P16338); CS.9.5= 14 sherds (P16795–P16808); CS.9.6= 11 sherds (P17069–P17079); CS.9.10= 5 sherds (P17429–P17433); CS.5.1.6= 7 sherds (P17827–P17833); CS.7.1.2= 7 sherds (P18332–P18338); CS.7.1.3= 19 sherds (P18489–P18507); CS.7.1.4= 3 sherds (P18678–P18681)

Total sherds: 622 sherds

Figures: 165 (D)

Parallels: Kush and al-Mataf (Kennet 2004: 57, figs. 28, types 109–110: pp: 124).

Class Code: LISLAM–REC

Class Name: L.Islamic to Recent

Period: L.Islamic to Recent?

Description: This class includes all the coarse wares that bear similar characteristics of both Late Islamic and Recent periods in which it was difficult to assign them with certainty to any of these two periods. Thus, they were classified under the broader chronological period between both Late Islamic and Recent.

Origin: Local?

Sites: CS.2.54= 16 sherds (P00001–P00008 & P13459–P13466); CS.2.68= 2 sherds (P00027–P00028); CS.2.69.2= 2 sherds (P00074–P00075); CS.9.5= 46 sherds (P00161–P00162, P00648–P00654 & P01700–P01736); CS.4.1.3= 50 sherds (P00380–P00381 & P10820–P10867); CS.9.10= 37 sherds (P00421–P00425 & P17456–P17487); CS.1.4= 4 sherds (P00439–P00442); CS.2.52.6= 4 sherds (P00597–P00600); CS.2.52.4= 1 sherd (P00691); CS.3.1.3= 20 sherds (P01183–P01202); CS.9.2.2= 35 sherds (P01462–P01496);

CS.2.41.10= 4 sherds (P01677–P01680); CS.2.53 = 5 sherds (P01819–P01823); CS.1.5.5= 6 sherds (P02418–P02419 & P02810–P02813); CS.5.4= 3 sherds (P02491–P02493); CS.6, Tomb 6= 10 sherds (P02497–P02506); CS.2.51.5= 3 sherds (P02708–P02710); CS.7.2= 14 sherds (P02781–P02794); CS.2.67.29= 5 sherds (P02968–P02972); CS.2.63= 5 sherds (P02973–P02977); CS.2.41.9= 40 sherds (P03047–P03086); CS.4.5= 21 sherds (P03087–P03097 & P11626–P11635); CS.5.15, Tomb 4= 2 sherds (P03388–P03389); CS.4.13, Tomb 9= 11 sherds (P03669–P03679); CS.9.2.1= 24 sherds (P04085–P04096 & P08037–P08048); CS.3.1.6= 14 sherds (P04118–P04122 & P09557–P09565); CS.5.2.2= 8 sherds (P04128–P04135); CS.3.2= 6 sherds (P04303–P04305 & P09566–P09568); CS.4.9= 6 sherds (P04470–P04471 & P11637–P11640); CS.9.1.8= 5 sherds (P04599–P04603); CS.5.1.4= 22 sherds (P04604–P04612 & P12915–P12927); CS.2.41.3= 6 sherds (P04843–P04848); CS.2.69.3.1= 15 sherds (P04849–P04863); CS.1.5= 60 sherds (P04913–P04972); CS.9.4= 6 sherds (P05032–P05037); CS.4.12.1= 17 sherds (P06127 & P11730–P11745); CS.2.61= 6 sherds (P07276–P07281); CS.4.4= 25 sherds (P07471–P07482 & P11579–P11591); CS.2.69.1.8= 1 sherd (P08049); CS.1.8= 1 sherd (P08428); CS.2.2= 5 sherds (P08429–P08433); CS.2.3= 25 sherds (P08479–P08503); CS.3.1.2= 60 sherds (P08822–P08881); CS.3.5.2= 20 sherds (P09863–P09882); CS.3.5.3= 10 sherds (P10027–P10036); CS.3.7.5= 33 sherds (P10344–P10376); CS.4.1.1= 70 sherds (P10501–P10517 & P18931–P18983); CS.4.1.2= 87 sherds (P10539–P10625); CS.4.1.4 = 225 sherds (P11052–P11136 & P19084–P19223); CS.4.1.5= 74 sherds (P11279–P11352); CS.4.1.6= 63 sherds (P11510–P11572); CS.1.5.1= 42 sherds (P11858–P11899); CS.1.5.2= 49 sherds (P12068–P12116); CS.5.1.1 = 44 sherds (P12143–P12186); CS.5.1.3= 29 sherds (P12804–P12832); CS.5.1.5= 26 sherds (P13049–P13074); CS.5.8= 24 sherds (P13181–P13204); CS.2.43.3= 5 sherds (P13331–P13335); CS.9.1.3= 46 sherds (P14737–P14782); CS.9.1.4= 24 sherds (P14972–P14995); CS.9.1.5= 40 sherds (P15281–P15320); CS.9.1.6= 40 sherds (P15536–P15575); CS.9.1.7= 14 sherds (P15576–P15589); CS.7.1.1 = 15 sherds (P18062–P18076); CS.7.1.3= 16 sherds (P18531–P18546); CS.7.1.4= 34 sherds (P18691–P18724); CS.7.1.5= 17 sherds (P18806–P18822)

Total sherds: 1705 sherds

Parallels: ?

Class Code: OGIW

Class Name: Other Glazed Islamic Ware

Period: Islamic?

Description: This class includes all the unidentifiable earthenware sherds that bear glaze or traces of glaze. These are small and/or badly eroded. Walls' thickness varies between 1 mm and 1 cm.

Origin: ?

Sites: CS.9.5= 6 sherds (P00134–P00139); CS.7.1.2= 1 sherd (P00311); CS.9.10= 15 sherds (P00410–P00420 & P17434–P17437); CS.1.4= 1 sherd (P00443); CS.2.55.1= 2 sherds (P00831–P00832); CS.4.1.1= 3 sherds (P07561–P07562 & P08060); CS.4.1.6= 8 sherds (P07594–P07601); CS.4.1.5= 4 sherds (P07745–P07748); CS.7.1.3= 4 sherds (P07850–P07853); CS.2.57= 1 sherd (P07929); CS.9.6= 15 sherds (P08002–P08016); CS.1.5.5= 2 sherds (P08260–P08261); CS.1.5.6= 2 sherds (P08406–P08407); CS.3.1.1= 2 sherds (P08651–P08652); CS.3.1.2= 3 sherds (P08819–P08821); CS.3.1.3= 13 sherds (P09121–P09133); CS.3.1.4= 19 sherds (P09319–P09337); CS.3.5.1= 4 sherds (P09735–P09738); CS.3.5.2= 8 sherds (P09851–P09858); CS.3.5.3= 4 sherds (P10023–P10026); CS.3.7.3= 11 sherds (P10220–P10230); CS.3.7.5= 21 sherds (P10315–P10335); CS.4.1.3= 2 sherds (P10818–P10819); CS.4.1.4= 10 sherds (P11037–P11042); P19078–P19081); CS.4.9= 1 sherd (P11636); CS.5.1.2= 5 sherds (P12306–P12310); CS.5.1.3= 13 sherds (P12787–P12799); CS.5.1.4= 1 sherd (P12901); CS.5.1.5= 2 sherds (P13037–P13038); CS.2.43.3 = 1 sherd (P13329); CS.2.50.2= 1 sherd (P13346); CS.2.51.7.1= 1 sherd (P13379); CS.2.52.3= 1 sherd (P13398); CS.2.60= 4 sherds (P13521–P13524); CS.9.1.1= 10 sherds (P13976–P13985); CS.9.1.2= 10 sherds (P14328–P14337); CS.9.1.3= 12 sherds (P14723–P14734); CS.9.1.4= 2 sherds (P14970–P14971); CS.9.1.5= 9 sherds (P15262–P15270); CS.9.1.6= 6 sherds (P15526–P15531); CS.9.1.7= 7 sherds (P15819–P15825); CS.9.1.8= 1 sherd (P16049); CS.9.2.1= 1 sherd (P16216); CS.9.2.2= 4 sherds (P16282–P16285); CS.9.4= 2 sherds (P16508–P16509); CS.5.1.6= 2 sherds (P17825–P17826)

Total sherds: 258 sherds

Parallels: ?

C.2– GLOSSARY OF USED TERMS:

TERM	DEFINITION
Base	The bottom or foot of a vessel that supports the main body of the vessel and which may be flat, concave, convex, footed, raised, etc
Beaker (Goblet)	A small vessel or cup with open mouth that is sometimes wider than its body and base width, and takes a cylindrical form.
Bottle	A closed vessel or small container with a narrow neck and small mouth. It is normally without handle.
Bowl	A small, open and shallow concave vessel.
Celadon	Chinese light grey stoneware porcelain with a glaze that varies in colour between green and light grey. This ware was exported to Europe as Chinese porcelain but in later stages was imitated and given the name celadon.
Ceramic (Pottery)	An object made of mixed-up materials such as clay and temper that were heated in a kiln under certain degrees of temperature.
Classification	A categorization or cataloguing of a collection of things into groups based on their main characteristics.
Clay	A natural soil or earth that includes different components. It is mixed with other materials, either dried or heated, to form the body of certain types of vessels. It is an essential element for archaeologists in their identification and classification of pottery fabrics.
Decoration	A surface treatment for the vessel that might be incisions, glazing, painting, coating, cutting, traces of wheel-turning, slips, stamped, impressed and projected motifs or applied relief.
Earthenware	The term used to describe specific types of pottery fired under certain low degrees of temperatures and includes specific tempers and inclusions as well as surface treatment.
Enamelling	A technique used to decorate Chinese porcelain fired under certain low degrees of temperatures and includes a very fine red-coloured enamelled decoration over thick or transparent glazes.
Fabric	This term is used to describe the characteristics of the pottery clay composition, colour, firing temperature, hardness and inclusions, which might be intentionally added or part of the natural components of the clay.
Firing	Heating under various degrees of temperatures used to heat pottery.
Form	The term is often used to describe the specific shape of a pottery vessel.
Glaze	A technique used to decorate pottery body surfaces. It is a vitreous coating of materials that is added before the vessel is fired, which melts the glaze materials.
Handle	A part of the vessel that is often added and fixed on the outer surface just on the neck, shoulder or the main body and sometimes links between the neck or shoulder and the main body. The shape of the handle varies between round, twisted, square, etc.
Inclusion	Any material either intentionally added or is part of the natural components of the mixture. The inclusion might be grains of sand, grits, shells, straws, reeds, grasses or any other types of inclusion.
Jar	A vessel with a narrow and high or short neck which is either with or without handle. It is usually made to serve as a storage or transporting vessel.
Lip (rim)	The edge or the upper part of the vessel's mouth. It could be of various shapes (e.g. rounded, thickened, square, etc.).
Lug	It is smaller than the handle and is sometimes pierced in order to suspend the vessel. It is sometimes used for decoration only.
Mica	A shiny mineral separable into thin transparent flakes which gives a shiny

(Micaceous)	feature to the fabric and surface of a vessel.
Neck	The part of a vessel that joins the rim to the shoulder of the main body. It is often narrow and high and sometimes might include a spout and/or handle or lug fixed on the neck and partly on the jar's shoulder.
Paste	The mixture of the material or clay used to make the vessel.
Polishing	A technique used to smooth the surface of the clay and reduce the particles on the vessel's wall giving it a shiny surface after firing.
Porcelain	Chinese, fine, hard-fired, compact and vitreous porcelain that includes a thick or transparent glaze of white and blue colours.
Pottery assemblage	A group of pottery either complete vessels or broken sherds that can be found during surveys or excavations of archaeological sites or features.
Pottery kiln	A furnace or oven used to heat or fire the pottery clay under certain degrees of temperatures.
Scraping	A method used to provide a smooth and even finish or touch for the main shape of the vessel.
Sgraffiato	A method of decoration of pottery made by incising linear designs through a white or cream slip before glazing on a red body. These linear designs are often filled with areas of coloured glaze—green, brown and yellow, forming geometric and/or floral motifs.
Sherd	A fragment of broken pottery vessel.
Shoulder	The upper part of the vessel just between the rim or neck of the vessel and the main body.
Slip	A material extracted from clay and used to cast a pottery vessel's wall in order to smooth its surface. The colour of the slip varies according to the original colour of the clay. The slip is also used as a surface treatment or painted decoration on pottery. It allows incision/scraping decorative effects.
Spout	An addition that is fixed into an opening in the upper part of the vessel through which liquid pours. The shape of this addition might include different forms such as straight, curved, cylindrical, etc.
Surface treatment	The method used to create and shape the vessel's surface in which decoration (e.g. painting, glaze, incision, slip, etc.) forms the major part of this method.
Temper	The term is used to describe the materials (e.g. sand, chaff, grits, shells, mica, etc.) added by the potter to the clay mixture in order to strengthen the vessel's body from breakage during the heating in the kiln and also to be able to shape the clay to different required forms.
Underglaze	A material that provides specific colour on the surface beneath the applied glaze on the vessel.
Vessel body	The main part of the vessel from its top to its bottom. It is a combination of materials such as clay, temper and other additional materials that form the main part of the vessel after being subject to various degrees of firing and other manufacture processes.
Vessel	The term is used to describe any complete pot or container.

APPENDIX D: OTHER TABLES USED IN THE THESIS

APPENDIX D: OTHER TABLES USED IN THE THESIS

This appendix includes other supported tables for the discussion within the thesis.

Name	Position	On which bank situated	Houses and Inhabitants	Remarks
Ghiryain (غريين)	1 mile below Hibāt	Do.	120 do.	Do. and 2,500 palms (At this point Wādi Mahram comes in from the right or western bank)
Hibāt (حباط)	4 miles below Mahalyah	Right	70 houses of Bani Ruwāhah of the Wilād Sulaimān-bin-'Umr and other sections	Possesses the ordinary livestock of 'Omān (viz., camels, donkeys, cattle, sheep and goats) and 2,000 palms
Jarda (جردا)	In the hills near the head of the Wādi-al-'Aqq tributary of Wādi Samāil	-	60 houses of Nidābihīn and others	There are 20 camels, 30 donkeys, 35 cattle, 200 sheep and goats and 150 date palms
Khadhra Bin-Daffā' (خضرا بن دفاع)	2.5 hours below Ghiryain and 10 or 12 miles south-west of Samad Town	Do.	See article 'Omān Proper	Do. and 4,000 palms (Here this valley is joined by Wādi Samad from the left or eastern bank)
Mahalyah (محليه)	2 miles below Washāl	Do.	100 do.	Do. do.
Majāzah (مجازه)	2 miles below Khadhra	Do.	180 houses of Bani Jābir of the Bani Harb section	Do. and 2,000 palms (Here Wādi Qant, described below joins Wādi 'Andām from the west)
Mukhtari' (مخترع)	1.5 hours below Wāshihi	Do.	100 houses of Shurūj	Do. and 2,000 palms
Mutaili' (مطيلع)	2 hours below Wāfi	Do.	80 do.	Do. do.
Ukhaidhir (اخيضر)	2 hours below Mukhtari'	Left	60 houses of Bani Ruwāhah	Do. and 1,000 palms
'Ulya (عليا)	At the head of the Wādi	Right	100 houses of Bani Ruwāhah	Possesses the ordinary livestock of 'Omān (viz., camels, sheep and goats) and 3,000 palms
Wāfi (وافي)	1 hour below Ukhaidhir	Do.	70 houses of Habūs	Do. and 1,500 palms
Washāl (وشال)	1 hour below 'Ulya	Left	50 do.	Do. and 1,000 palms
Wāshihi (واشحي)	2 miles below Majāzah	Do.	50 houses of Bani Ruwāhah	Do. and 600 palms

Table D. 1 Wadi Andam villages as described by Lorimer (1908: 77-78 & 607)

Area	Total Date Palm Trees	Reference
Awābi	4,000	Lorimer 1908: 186
Bahla	3,000	Lorimer 1908: 209
Balad Bani Bi Ali	30,000	Lorimer 1908: 64
Balad Bani Bu Hasan	10,000	Lorimer 1908: 679
Buraimi Oasis	60,000	Lorimer 1908: 263
Ibrā	100,000	Lorimer 1908: 757
'Ibri	50,000	Lorimer 1908: 757
Mahādhah	20,500	Lorimer 1908: 1117-1120
Manah	20,000	Lorimer 1908: 1158
Miskin	4,000	Lorimer 1908: 1229
Nizwa	25,000	Lorimer 1908: 1365
Rustāq	12,000	Lorimer 1908: 1603
Sanāu	18,000	Lorimer 1908: 1682
Taiwi Village	500	Lorimer 1908: 1906
Wadi Andam	19,600	Lorimer 1908: 77-78
Wadi Bani Ghāfir	25,000	Lorimer 1908: 575
Wadi Bani 'Umr	41,000	Lorimer 1908: 1915-1916
Wadi Fara'	364,000	Lorimer 1908: 546-551
Wadi Hawāsinah	26,700	Lorimer 1908: 688-690
Wadi Mahram	15,700	Lorimer 1908: 1125
Wadi Samad	7,000	Lorimer 1908: 1662

Table D. 2 Total estimated number of date palm trees from some areas reported by Lorimer (1908)

Crop	Area	Reference
Alfalfa	Madam,	Bowen-Jones et al. 1966/7: 116
Almond	Dhaid, Diba, Kalba, Wadi al-Hawāsinah,	Lorimer 1908: 690; Bowen-Jones et al. 1966/7: 99, 109, 121
Apricot	Jebel Akhdar	Wilkinson JC 1977: 28-29; Lawton 1980: 10
Aubergines	Dhaid, Kalba, Madam, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99, 116, 121
Bajri	Wadi al-Hawāsinah,	Lorimer 1908: 690
Banana	Buraimi, Diba, Jebel Akhdar, Kalba, Ras al-Khaimah,	Lorimer 1908: 263; Bowen-Jones et al. 1966/7: 82, 99, 109; Wilkinson JC 1977: 28-29
Barely	Awābi, Bahla, Buraimi, Nizwa, Rustāq, Samad, Wadi al-Hawāsinah, Wadi Bani Ghāfir, Wadi Fara'	Lorimer 1908: 186, 209, 263, 546-551, 575, 690, 1365, 1603, 1662;
Beans	Bahla, Buraimi, Nizwa, Ras al-Khaimah, Rustāq, Wadi al-Hawāsinah, Wadi Bani Ghāfir,	Lorimer 1908: 209, 263, 575, 690, 1365, 1603; Bowen-Jones et al. 1966/7: 82
Bootroots	Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82
Cabbage	Kalba, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99
Carrot	Madam,	Bowen-Jones et al. 1966/7: 116
Cauliflowers	Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82
Corn	Wadi Bōshar	Lorimer 1908: 322
Cotton	Bahla, Balad Bani Bu Hasan, Buraimi, Nizwa,	Lorimer 1908: 209, 263, 679, 1365
Cucumber	Kalba, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99
Fig	Buraimi, Dhaid, Jebel Akhdar, Madam, Miskin, Wadi al-Hawāsinah,	Lorimer 1908: 263, 690, 1229; Bowen-Jones et al. 1966/7: 116, 121; Wilkinson JC 1977: 28-29
Garlic	Buraimi	Lorimer 1908: 263
Gram	Bahla, Manah,	Lorimer 1908: 209, 1157
Grape	Buraimi, Jebel Akhdar, Manah, Wadi al-Hawāsinah,	Lorimer 1908: 263, 690, 1158; Wilkinson JC 1977: 28-29
Guava	Dhaid, Diba, Kalba, Madam,	Bowen-Jones et al. 1966/7: 99, 109, 116, 121
Jasmine	Saiq,	Lorimer 1908: 1650
Jowari	Bahla, Buraimi, Mahādhah, Miskin, Saiq,	Lorimer 1908: 209, 263, 1118, 1229, 1650,
Lemon	Buraimi, Dhaid, Diba, Jebel Akhdar, Kalba, Madam,	Lorimer 1908: 263; Bowen-Jones et al. 1966/7: 99, 109, 116, 121; Wilkinson JC 1977: 28-29
Limes	Buraimi, Manah, Dhaid, Diba, Kalba, Madam, Ras al-Khaimah, Wadi al-Hawāsinah, Wadi Bōshar	Lorimer 1908: 263, 322, 690, 1158; Bowen-Jones et al. 1966/7: 82, 99, 109, 116, 121
Lucerne	Awābi, Balad Bani Bu Hasan, Buraimi, Kalba, Miskin, Nizwa, Ras al-Khaimah, Rustāq, Samad, Wadi al-Hawāsinah, Wadi Bani 'Auf, Wadi Bani Ghāfir, Wadi Bani 'Umr, Wadi Fara'	Lorimer 1908: 185, 186, 263, 546-551, 575, 679, 690, 1229, 1365, 1603, 1662, 1915; Bowen-Jones et al. 1966/7: 82, 99
Maize	Awābi, Balad Bani Bu Hasan, Nizwa, Wadi al-Hawāsinah, Wadi Bani 'Umr,	Lorimer 1908: 186, 679, 690, 1365, 1915
Mango	Bahla, Buraimi, Dhaid, Diba, Madam, Miskin, Kalba, Ras al-Khaimah, Wadi al-Hawāsinah, Wadi Bōshar	Lorimer 1908: 209, 263, 322, 690, 1229; Bowen-Jones et al. 1966/7: 82, 99, 109, 116, 121
Marrow	Madam, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 116
Melon/Water melon	Buraimi, Kalba, Madam, Ras al-Khaimah,	Lorimer 1908: 263; Bowen-Jones et al. 1966/7: 82, 99, 116
Millet	Awābi, Buraimi, Mahādhah, Nizwa, Wadi al-Hawāsinah, Wadi Bani Ghāfir, Wadi Fara'	Lorimer 1908: 186, 263, 546-551, 575, 690, 1118, 1365
Mulberries	Diba, Jebel Akhdar, Kalba	Bowen-Jones et al. 1966/7: 99, 109; Wilkinson JC 1977: 28-29;

Myrtle	Saiq,	Lorimer 1908: 1650
Okra	Kalba, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99
Olive	Buraimi, Wadi al-Hawāsinah,	Lorimer 1908: 263, 690
Onion	Buraimi, Dhaid, Diba, Jebel Akhdar, Kalba, Madam, Ras al-Khaimah	Lorimer 1908: 263; Bowen-Jones et al. 1966/7: 82, 99, 109, 116, 121; Lawton 1980: 10
Papai	Buraimi	Lorimer 1908: 263
Parsley	Madam, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 116
Peach	Jebel Akhdar	Wilkinson JC 1977: 28-29; Lawton 1980: 10
Peas	Nizwa	Lorimer 1908: 1365
Pepper	Dhaid, Diba, Kalba, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99, 109, 121
Plum	Wadi al-Hawāsinah,	Lorimer 1908: 690
Pomegranate	Buraimi, Jebel Akhdar, Kalba, Madam, Wadi al-Hawāsinah, Wadi Bōshar	Lorimer 1908: 263, 322, 690; Bowen-Jones et al. 1966/7: 99, 116; Wilkinson JC 1977: 28-29
Potato/Sweet potato	Buraimi, Dhaid, Diba, Kalba, Ras al-Khaimah, Wadi al-Hawāsinah, Wadi Bani 'Umr,	Lorimer 1908: 263, 690, 1915; Bowen-Jones et al. 1966/7: 82, 99, 109, 121
Pulse	Buraimi	Lorimer 1908: 263
Pumpkin	Kalba, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99
Quince	Manah, Wadi al-Hawāsinah,	Lorimer 1908: 690, 1158
Radish	Buraimi, Diba, Kalba, Ras al-Khaimah,	Lorimer 1908: 263; Bowen-Jones et al. 1966/7: 82, 99, 109
Rose	Jebel Akhdar, Saiq,	Lorimer 1908: 1650; Wilkinson JC 1977: 28-29;
Sesame	Nizwa	Lorimer 1908: 1365
Spinach	Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82
Squash	Diba, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 109
Sugarcane	Bahla, Manah, Nizwa, Samad,	Lorimer 1908: 209, 1157, 1365, 1662;
Tobacco	Madam, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 116
Tomato	Dhaid, Diba, Kalba, Madam, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99, 109, 116, 121
Turnip	Kalba, Madam, Ras al-Khaimah	Bowen-Jones et al. 1966/7: 82, 99, 116
Vine	Miskin, Saiq,	Lorimer 1908: 1229, 1650
Walnut	Jebel Akhdar	Wilkinson JC 1977: 28-29; Lawton 1980: 10
Wheat	Awābi, Bahla, Buraimi, Mahādhah, Manah, Miskin, Nizwa, Rustāq, Saiq, Samad, Wadi al-Hawāsinah, Wadi Bani 'Auf, Wadi Bani Ghāfir, Wadi Bani 'Umr, Wadi Fara', Wadi Sahtan	Lorimer 1908: 185, 186, 209, 263, 546-551, 575, 690, 1118, 1157, 1229, 1365, 1603, 1646, 1650, 1662, 1915

Table D. 3 Different types of crops cultivated in the some parts of the peninsula

Area	Horse	Camel	Donkey	Cattle	Sheep & Goat	Reference
Awābi	-	100	150	100	4,000	Lorimer 1908: 186
Bahla	40	300	400	600	1,000	Lorimer 1908: 209
Balad Bani Bi Ali	-	2,000	800	-	4,000	Lorimer 1908: 64
Balad Bani Bu Hasan	15	250	400	-	2,000	Lorimer 1908: 679
Buraimi Oasis	50	550	300	300	2,500	Lorimer 1908: 263
Ibra	10	300	800	600	2,000	Lorimer 1908: 757
'Ibri	30	400	300	500	2,000	Lorimer 1908: 757
Mahādhah	-	400	470	600	100,700	Lorimer 1908: 1117-1120
Manah	-	30	100	-	3,000	Lorimer 1908: 1158
Miskin	-	30	20	120	1,000	Lorimer 1908: 1229
Mudhaibi	-	100	60	70	600	Lorimer 1908: 1246
Nizwa	7	600	60	150	7,000	Lorimer 1908: 1365
Rustāq	20	240	400	400	1,000	Lorimer 1908: 1603
Saham Town	-	30	40	300	300	Lorimer 1908: 1646
Saiq	-	-	40	40	600	Lorimer 1908: 1550
Samad Town	-	300	200	200	1,000	Lorimer 1908: 1662
Sanāu	-	20	100	100	500	Lorimer 1908: 1682
Taiwi Village	-	12	75	40	400	Lorimer 1908: 1906
Wadi Andam	-	200	350	350	2,500	Lorimer 1908: 79
Wadi Bani 'Auf	-	100	150	100	4,000	Lorimer 1908: 186
Wadi Bani Ghāfir	-	1,000	5,000	2,000	8,000	Lorimer 1908: 575
Wadi Fara'	10	6	378	470	3,075	Lorimer 1908: 546-551
Wadi Mahram	-	265	410	680	2,450	Lorimer 1908: 1125

Table D. 4 Detailed account and statistics of the major domestic animals kept and raised by the inhabitants of the areas and towns visited by Lorimer (1908)

Family	Scientific Name	Arabic Name	English Name	Locality
Albulidae	<i>Albula vulpes</i>	Tarr (تر)	Ladyfish, Bonefish	Sohar, Seeb, North of Masira
Ariidae	<i>Arius thalassinus</i>	Khann (خن)	Sea catfish	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Balistidae	<i>Abalistes stellaris</i>	Karkamba (كركمبه)	Triggerfish	Sohar, Seeb
Belonidae	<i>Tylosurus crocodiles</i>	Haqul (حقول)	Needlefish; Long Toms	Sohar, Seeb, North of Masira
Carangidae	<i>Megalaspis cordyla</i>	Diyayu (ديايوه)	Jacks	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Decapterus pinnulatus</i>	Balej (بليج)	Mackerel scad	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Elegatis bipinnulatus</i>	Ghazal (غزال)	Rainbow runner	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Gnathanodon speciosus</i>	Zuraydi (زريدي)	Golden Trevally	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Chorinemus iysan</i>	Dhila' (ضلعه)	Queenfish	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira
Carangidae	<i>Carangoides malabaricus</i>	Jesh (جش)	Malbar trevally, Jack	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Caranx sexfasciatus</i>	Jesh (جش)	Trevally	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Selar crumenophthalmus</i>	Sāl (صال)	Scad, Jack	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Trachinotus blochi</i>	Rahiyt (رحيت)	Pompano	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carangidae	<i>Zonichthys nigrofasciata</i>	Halwayoh (خلوايوه)	Yellotails	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira
Carcharhinidae	<i>Carcharhinus melanopterus</i>	Jarjūr (جرجور)	Gray reef shark	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Kuria Muria bay
Chanidae	<i>Chanos chanos</i>	Numerā (نميرا)	Milkfish	Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Clupeidae	<i>Sardinella longiceps</i>	'Ūma (عومه)	Indian Oil Sardine	Ras lima, North of Masira, Sauqira bay, Kuria Muria bay
Coryphaenidae	<i>Coryphaena hippurus</i>	Anfalus (انفالوس)	Dolphinfish	Sohar, Suwaiq, Seeb, North of Masira
Dasyatidae	<i>Himantura uranak</i>	Tabāq (طباق)	Sting ray	Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira
Drepanidae	<i>Drepane punctata</i>	Misht (مشط)	Sicklefish, Spadefish	Sohar, Suwaiq, Seeb, Ras Quamylah
Engraulidae	<i>Stolephorus indicus</i>	Barriya (بريه)	Anchovy	Ras lima, Sohar, Seeb, North & South of Masira
Hemirhamphidae	<i>Hemirhamphus marginatus</i>	Maran (مران)	Half-beaks	Sohar, Suwaiq, Seeb, North of Masira
Istiophoridae	<i>Istiophorus gladius</i>	Khail al-Bahar (خيل البحر)	Sailfish	Ras lima, Sohar, Seeb, North of Masira, Gulf of Masira

Katsuwonidae	Katsuwonus pelamis	Sada' (صداء)	Skipjacks, Frigate Mackerel	Sohar, Suwaiq, Ras Quamylah, North of Masira
Lethrinidae	Lethrinus miniatus	Sha'rī (شعري)	Scavenger, Pig-face bream	Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira
Lethrinidae	Lethrinus nebulosus	Sha'rī (شعري)	Scavenger, Pig-face bream	Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira
Lolignidae	Loligo vulgaris	Naghar (نغر)	Squid	Ras Lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira, Sauqira bay
Lutjanidae	Lutjanus argentimaculatus	Hamra (حمراء)	Snapper	Ras lima, Suwaiq, Seeb, North of Masira
Lutjanidae	Lutjanus johni	Hamra (حمراء)	Snapper	Ras lima, Suwaiq, Seeb, North of Masira, Gulf of Masira
Lutjanidae	Caesio sp.	Sīm (صيم)	Fusiliers	Ras lima, Suwaiq, Seeb, North of Masira
Mugilidae	Mugil cephalus	Bayāh (بياح)	Grey Mullet	Gulf of Masira, Sauqira bay
Mulidae	Parupeneus indicus	Sultān Ibrāhim (سلطان ابراهيم)	Goatfish, Red Mullet	Ras Lima, Sohar, Suwaiq, Seeb, Ras Quamylah
Mulidae	Upeneus vittatus	Sultān Ibrāhim (سلطان ابراهيم)	Goatfish, Red Mullet	Ras Lima, Sohar, Suwaiq, Seeb, Ras Quamylah
Mulidae	Mulloidichthys auriflamma	Sultān Ibrāhim (سلطان ابراهيم)	Goatfish, Red Mullet	Ras Lima, Sohar, Suwaiq, Seeb, Ras Quamylah
Nemipteridae	Nemipterus tolu	'Andaq (عندق)	Threadfin bream	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira, Kuria Muria bay
Panularidae	Panulirus homorus	Sharkha (شارخه)	Spiny lobsters	Masira, Gulf of Masira, Kuria Muria bay
Penaeidae	Penaeus sp.	Rubyān (روبيان)	Shrimp	Ras Lima, Sohar, Suwaiq, Seeb, Gulf of Masira
Plectorhynchidae	Plectorhynchus gaterinus	Hilālī (هلالی)	Sweetlips, spotted gaterin	Ras lima, Sohar, Suwaiq, Seeb, North of Masira, Sauqira bay, Gulf of Masira
Pomadasydae	Pomadays hasta	Naqrūr (نقروور)	Sliver Grunter, Javelinfish	Ras lima, Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Pomadasydae	Pomadays maculatus	Naqrūr (نقروور)	Grunter, Javelinfish	Ras lima, Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Psettodidae	Psettodes erumei	Kabsh (كبش)	Indian Halibut	Ras lima, Sohar, Suwaiq, Seeb, Gulf of Masira
Rachucentridae	Rachycentron canadus	Sikal (سیکل)	Cobia	Sohar, Suwaiq, North of Masira, Gulf of Masira
Rhinobatidae	Rhynchobatus djiddensis	Barbar (بربر)	Shovelnose rays	Sohar, Suwaiq, North of Masira and Sauqira bay
Scaridae	Scarus sordidus	Jinn (جن)	Parrotfish	North of Masira, Gulf of Masira
Scoenidae	Sciaena dussumieri	Yanam (ينم)	Croaker	Sohar, Suwaiq, Ras Quamylah, North of Masira, Gulf of Masira
Scolopsidae	Scolopsis ghanam	Abzemyia (أبزييمی)	Monocle-brems	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira
Scomberomoridae	Scomberomorus commersoni	Kan'ad (کنعد)	Kingfish	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira, Kuria Muria bay
Scombridae	Rastrelliger kanagurta	Sīm (صيم)	Golden-striped Mackerel	Ras lima, Sohar, Seeb, North & South of Masira
Sepiolidae	Sepia pharaonis	'Uq (عوق)	Cuttlefish	Ras Lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira, Kuria Muria bay

Serranidae	Cephalopholis miniatus	Hāmūr (هامور)	Rock-cod, Seapike	Ras lima, Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Serranidae	Epinephelus areolatus	Hāmūr (هامور)	Rock-cod, Groper	Ras lima, Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Serranidae	Epinephelus tauvina	Hāmūr (هامور)	Rock-cod, Groper	Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Siganidae	Siganus oramin	Sāfi (صافي)	Spinefeet, Rabbitfish	Sohar, Seeb
Sparidae	Argyrops spinifer	Kawfar (كوفر)	Porgy, Sliverbream	Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Sauqira bay, Gulf of Masira, Kuria Muria bay
Sphyraenidae	Sphyraena jello	Kadd (كد)	Barracuda	Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira, Sauqira bay, Kuria Muria bay
Synodontidae	Saurida tumbil	Hasum (حاسوم)	Lizardfish	Ras lima, Sohar, Suwaiq, Seeb, Ras Quamylah, North of Masira, Gulf of Masira, Sauqira bay, Kuria Muria bay
Theraponidae	Therapon jarbua	Yamyām (يميام)	Tigerfish	Sohar, Suwaiq, Seeb, North of Masira, Gulf of Masira
Thunnidae	Thunnus albacares	Sahwa (سهوه)	Yellow-tin tuna, Albacore	Ras lima, Sohar, Suwaiq, Seeb, North of Masira, Kuria Muria bay

Table D. 5 Different species of fish that can be found in the peninsula's coasts [source: Ministry of Agriculture and Fisheries (n.d.)]

Phase	Unit	Sample	Radiocarbon age BP (Cleuziou 1980)	Calibrated Age(s) (Potts 1997)	Cal. BC age ranges (Potts 1997)	Relative contribution to probabilities (Potts 1997)	Cal. BC 2 sigma using OxCal 3.10
H	F 20	MC-2259	3520 ± 90	1875, 1836, 1818, 1800, 1785	1945-1746 1715-1698	0.95 0.05	2150-1600
-	-	MC-2260	3430 ± 90	1737, 1714, 1701	1876-1835 1820-1797 1786-1617	0.16 0.08 0.76	1960-1510
F	F 3	MC-2261	3710 ± 90	2128, 2080, 2045	2271-2266 2202-1947	0.01 0.99	2500-1850
F	F 5	MC-2262	3690 ± 90	2112, 2089, 2038	2194-2145 2148-1935	0.13 0.87	2450-1750
F	Unit 104	MC-2263	3950 ± 90	2461	2570-2516 2506-2302	0.19 0.81	2750-2100
E	F 13	MC-2264	3840 ± 100	2285	2454-2416 2408-2182 2164-2143	0.12 0.81 0.07	2600-1950
E	F 14	MC-2265	3900 ± 100	2450, 2446, 2401, 2372, 2365	2482-2201	1.00	2700-2000
Bd. III	Room 6	MC-2266	4400 ± 100	3028, 2975, 2930	3300-3235 3175-3166 3108-2903	0.18 0.02 0.79	3370-2870
Bd. III	Room 10	MC-2267	4400 ± 100	3028, 2975, 2930	3300-3235 3175-3166 3108-2903	0.18 0.02 0.79	3370-2870

Table D. 6 C14 dates from Hili 8 (after Cleuziou 1980: 32, Table 1 & Potts 1997: 67, Table 1): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Sample	Radiocarbon age BP	Calibrated Age(s)	Cal. BC age ranges	Relative contribution to probabilities	Cal. BC 2 sigma using OxCal 3.10
SM-1236	3603 ± 213	1938	2275-2237 2206-1680	0.04 0.96	2600-1400
SM-1237	3715 ± 217	2131, 2078, 2047	2452-2427 2404-1877 1835-1820 1797-1787	0.04 0.93 0.01 0.01	2900-1500
SM-1238	3603 ± 213	1938	2275-2237 2206-1680	0.04 0.96	2600-1400
SM-1239	3940 ± 213	2459	2859-2816 2693-2675 2669-2135 2071-2067	0.06 0.03 0.91 0.01	3100-1700

Table D. 7 C14 dates from Hili 1 (after Potts 1997: 67, Table 2) dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Site/Building	Locus	Lab no.	Half-life 5570; Cal. BC date
Bat/Tower 1145	Under Tower 3980 80	Nat. Mus. Copenhagen K-2797	2570 (Clark 1975)
Bat/Tower 1145	Outside fireplace 3860 115	Nat. Mus. Copenhagen K-3207	2400 (Clark 1975)
Bat/Tower 1145	Outside fireplace 3900 85	Nat. Mus. Copenhagen K-3208	2455 (Clark 1975)
Bat/Tower 1147	Under fireplace 1174e	Nat. Mus. Copenhagen K-5470	2885-2679 (Stuiver & Reimer 1993)

Table D. 8 C14 dates from Bat buildings (after Frifelt 2002: 107-108)

Lab no.	Material/Sample	C14 BP date	1 sigma Cal. BC date (Pearson & Stuiver 1986)	2 sigma Cal. BC date (Pearson & Stuiver 1986)	¹³ C
BM 2928	Carbonized dates	3610 ± 40	2035-1920	2130-2075 2045-1885	-23.9 ‰

Table D. 9 C14 date from Nud Ziba (after Kennet & Velde 1995: 85)

Locus	Lab no.	Material/Sample	C14 BP date	Cal. BC date	Cal. ± 1 sigma	¹³ C
I.7.90	K-5574	Charcoal	3685 ± 60	2130	2190-2020	-23.9 ‰
I.loc.23 (7.97-7.77)	K-5575	Charcoal	3750 ± 65	2190	2290-2040	-24.7 ‰
II.loc.22	K-5576	Carbonized dates	3720 ± 85	2140	2280-2030	-21.8 ‰
II.loc.4	K-5577	Carbonized dates	3745 ± 75	2190-2140	2290-2040	-21.7 ‰
III.loc.27	K-5578	Carbonized dates	3730 ± 85	2170-2140	2280-2030	-22.6 ‰
I. 4.94-4.74	K-5579	Carbonized dates	3270 ± 75	1520	1670-1460	-22.3 ‰
I. Locus 15	K-5580	Carbonized dates	3470 ± 80	1860-1770	1890-1690	-23.3 ‰
II.3.96-3.76	K-5581	Carbonized dates	3830 ± 85	2300	2460-2140	-22.0 ‰
III.2.76-2.56	K-5582	Charcoal	4020 ± 85	2570-2510	2860-2460	-23.5 ‰
I. Locus 3	K-5583	Carbonized dates	3370 ± 80	1690	1750-1530	-23.1 ‰

Table D. 10 C14 dates from the Tell Abraq Building and tomb (after Potts 1993b: 126, Table 1; calibrated after Pearson & Stuiver 1986)

Sample	Radiocarbon age BP	Calibrated Age(s)	Cal. BC age ranges	Relative contribution to probabilities	Cal. BC 2 sigma using OxCal 3.10
K-5574	3685 ± 60	2036	2138-1972	1.00	2280-2250 2210-1900
K-5575	3750 ± 65	2140	2275-2239 2205-2036	0.14 0.86	2410-2380 2350-1950
K-5576	3720 ± 85	2132, 2076, 2048	2273-2255 2204-1972	0.05 0.95	2500-1850
K-5577	3745 ± 75	2139	2277-2224 2207-2031 1991-1989	0.18 0.81 0.01	2500-1900
K-5578	3730 ± 85	2135, 2071, 2063	2275-2239 2205-2015 2006-1978	0.11 0.80 0.09	2500-1900
K-5581	3830 ± 85	2281	2451-2440 2401-2371 2367-2177 2167-2142	0.03 0.11 0.78 0.09	2550-2000
K-5582	4020 ± 85	2558, 2530, 2497	2855-2820 2662-2636 2627-2451 2429-2403	0.09 0.07 0.78 0.06	2900-2250
OZA-918U	3480 ± 70	1758	1800-1830 1830-1735 1719-1691	0.30 0.56 0.14	1980-1620
OZA-920U	3450 ± 70	1881	1936-1757	1.00	1950-1600 1580-1530
OZA-921U	3440 ± 60	1740	1874-1838 1815-1804 1783-1673	0.19 0.04 0.75	1920-1600
OZA-923U	3750 ± 60	2140	2274-2251 2205-2037	0.09 0.91	2350-1960
OZA-924U	3760 ± 100	2178, 2166, 2143	2314-2026 1997-1985	0.97 0.03	2500-1900
OZA-929U	3830 ± 90	2281	2451-2436 2402-2370 2369-2175 2167-2142	0.05 0.11 0.76 0.09	2600-2000
OZA-930U	3730 ± 60	2135, 2071, 2063	2199-2028 1995-1986	0.04 0.25	2300-1940
OZA-936U	3760 ± 60	2178, 2166, 2143	2277-2221 2208-2118 2085-2041	0.25 0.52 0.23	2440-2370 2350-2010 2000-1970

Table D. 11 C14 dates from Tell Abraq (after Potts 1997: 68, Table 3) dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Sample	Layer	Lab. No.	Date BP before 1950	Corr.date BC	
				95% confidence	MASCA (2 sigma)
RAK 1 Shell	Layer 9	Hv-13640	3175 ± 65	1665-1350	1510-1540 ± 75
RAK 2 Charcoal	Layer 9	Hv-13641	2725 ± 145	1250-600	930 ± 155
RAK 3 Shell	Layer 2	Hv-13642	3195 ± 65	1675-1375	1520-1560 ± 75

Table D. 12 C14 dates from Shimal SM I (after Vogt & Franke-Vogt 1987: 15)

Lab.No	Sample	Date BP	Cal. BC	Cal. BC 2 sigma using OxCal 3.10
Bln-3689	Charcoal	3450 ± 70	1895-1692	1950-1600 1580-1530
Bln-3652/I	Perna picta shell	3290 ± 60	1736-1616	1730-1710 1700-1430
Bln-3652/II	Perna picta shell	3450 ± 60	1736-1616	1930-1610

Table D. 13 C14 dates from RJ-1 (after Monchablon et al. 2003: 31) dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Lab. No.	Reported date (BP)	Calibrated 1 sigma (BC)	Locus	Period	Level	Sample	Cal. BC 2 sigma using OxCal 3.10
Ly 3076	3100 ± 170	1695-920	Hearth	I	A	Charcoal	1750-900
Ly 3078	2860 ± 150	1400-790	Hearth 63	I	-	Charcoal	1450-750
Ly 3077	2730 ± 150	1250-600	Hearth 362	II	1b	Charcoal	1350-400
Ly 3075	2740 ± 100	1225-645	Hearth 240	II	2b	Charcoal	1300-750

Table D. 14 C14 Dates at Rumeilah (after Boucharlat & Lombard 1985: 50): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Context	Culture	Lab.No	C14	Cal. Dating 1 sigma	Cal. BC/AD 2 sigma using OxCal 3.10
Gr. 101125	Samad	BLN 2746	1500 ± 50 BP	437-637 AD	430-650 AD
Gr. 2138	Samad	BLN 3839	1660 ± 100 BP	255-533 AD	130-600 AD
Gr. 2137	Samad	BLN 3838	1790 ± 120 BP	70-389 AD	50 BC-550 AD
Gr. 101128	Samad	HD 8526-8711	2410 ± 80 BP	762-398 BC	780-370 BC
Gr. 101130	Samad	BLN 2747	2730 ± 50 BP	970-828 BC	1000-800 BC
Lizq fort	Lizq	KN 3499	2770 ± 160 BP	1210-800 BC	1400-500 BC

Table D. 15 C14 dates from Samad and Lizq (after Yule & Weisgerber 1988: 32; calibration: Stuiver and Becker 1986, half-life: 5568 years): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Sample	14c Age	1 sigma Range BC	Relative Contribution to Probabilities	2 sigma Range BC	Relative Contribution to Probabilities	Reference
Bln-2747	2730 ± 50	905-824	1.00	985-958 943-803	0.05 0.95	Yule & Weisgerber 1988: 32
Kn-3499	2770 ± 160	1194-1184 1163-1142 1138-797	0.02 0.04 0.95	1386-1337 1324-519	0.02 0.98	Yule & Weisgerber 1988: 32

Table D. 16 C14 dates for the Lizq Culture (Magee & Carter 1999: 173)

Sample	14c Age	Calibrated Age BC	Dates using Probability method (2 sigma)	Relative Contribution to Probabilities
HV 13640 (shell)	3175 ± 65	1427	1602-1560 BC	0.04
			1535-1266 BC	0.96
HV 13641 (charcoal)	2725 ± 145	840	1261-484 BC	0.99
			446-423 BC	0.01
HV 13642	3195 ± 65	1439	1617-1309 BC	1.00

Table D. 17 C14 dates for Iron Age I from SM1, calibration: Stuiver & Reimer 1993 (Shimal Muschelhaufen 1) (Magee 1996: 245, Table 1)

Sample	14c Age	Calibrated Age BC	Dates using Probability method (2 sigma)	Relative Contribution to Probabilities
Beta 91468 (charcoal) (Husn Awhala)	2670 ± 60	814	985-958 BC	0.02
			943-763 BC	0.98
			618-603 BC	0.01
Beta 91467 (charcoal) (Husn Awhala)	2670 ± 60	814	985-958 BC	0.02
			943-763 BC	0.98
			618-603 BC	0.01
Beta 91469 (charcoal) (Husn Awhala)	2610 ± 60	799	900-751 BC	0.62
			729-530 BC	0.38
Ly 3076 (charcoal) (Rumeilah)	3110 ± 170	1396	1737-1713 BC	0.01
			1703-915 BC	0.99
Ly 3783 (charcoal) (Rumeilah)	2970 ± 150	1196, 1181, 1165, 1141, 1139	1507-1474 BC	0.02
			1464-836 BC	0.98
Ly 3782 Date seed (Rumeilah)	2610 ± 90	799	918-475 BC	0.97
			459-418 BC	0.03
Ly 3078 (charcoal) (Rumeilah)	2860 ± 150	1004	1425-776 BC	1.00
Ly 3078 (shell) (Rumeilah)	2860 ± 100	1004	1300-1277 BC	0.01
			1269-816 BC	0.99
Bln 2747 (charcoal) (Lizq)	2730 ± 50	843	985-958 BC	0.05
			943-803 BC	0.95
Kn 3499 (charcoal) (Lizq)	2770 ± 160	906	1386-1337 BC	0.02
			1324-519 BC	0.98

Table D. 18 C14 dates for the Iron Age II contexts in the Oman Peninsula with their ages and calibrated range (Magee 1996: 247, Table 2)

Sigma	Date Probabilities	Relative Contribution to Probabilities
1 sigma	1120-758 BC	0.82
	678-653 BC	0.03
	646-548 BC	0.15
2 sigma	1438-751 BC	0.82
	738-528 BC	0.18

Table D. 19 Probabilities of all the dates presented at Table (2) into a single range which represents their total calendric range (Magee 1996: 248, Table 3)

Sample	14c Age	Calibrated Age BC	Dates using Probability method (2 sigma)	Relative Contribution to Probabilities
Ly 3077 (charcoal)	2730 ± 150	843	1265-478 BC	0.99
			453-420BC	0.01
Ly 3781 (charcoal)	2660 ± 120	810	1111-1107 BC	0.00
			1055-409 BC	1.00
Ly 3779 (charcoal)	2380 ± 110	403	786-335 BC	0.86
			325-201 BC	0.14
Ly 3075 (charcoal)	2740 ± 100	893, 882, 848	1251-1249 BC	0.00
			1204-760 BC	0.98
			672-667 BC	0.00
			629-593 BC	0.01
			581-563 BC	0.01
Ly 3080 (charcoal)	2580 ± 110	793	906-405 BC	1.00
Ly 3778 (charcoal)	2280 ± 110	377	761-671 BC	0.06
			667-630 BC	0.02
			593-581 BC	0.01
			562-45 BC	0.91

Table D. 20 C14 dates available for the Iron Age III period, all from Rumeilah, presented with their calibrated ages (Magee 1996: 248, Table 4)

Sample Code	Material	C14 age	Calibrated Age BC	Calibrated BC 2 sigma (probability method)	Relative contribution to probabilities
Beta 116117	Wood charcoal	2680 ± 50	818	918-789	1.00

Table D. 21 C14 dates from pit under the wall of an Area C at Muweilah (after Magee 1999: 45, Table 1)

Sample Code	Material	C14 age	Calibrated Age BC	Calibrated BC 2 sigma (probability method)	Relative contribution to probabilities
OZB802	Date seed	2406 ± 134	408	808-188	1.00
OZB803	Wood charcoal	2427 ± 78	475, 460, 418	778-386	1.00
OZB804	Date seed	2488 ± 67	757, 681, 454	782-413	1.00
OZB805	Wood charcoal	2943 ± 182	1126	1604-1558 1538-790	0.01 0.99
OZB806	Wood charcoal	2334 ± 116	394	779-154 142-122	0.99 0.01
OZB807	Wood charcoal	2885 ± 144	1029	1407-804	1.00
Beta 116112	Wood charcoal	2560 ± 60	785	820-488 442-424	0.99 0.01

Table D. 22 C14 dates from the destruction level of Area C at Muweilah (after Magee 1998a: 114, Table 1 & 1999: 46, Table 2)

Sample Code	Material	C14 age	Calibrated Age BC	Calibrated BC 2 sigma (probability method)	Relative contribution to probabilities
Average date	Charcoal	2479 ± 30	755, 687, 539	768-475 460-418	0.92 0.08

Table D. 23 Calibrated range of the averaged sample from the destruction level of an Area C at Muweilah (after Magee 1999: 46, Table 3)

Site	Sample Code	Material	Remarks	C14 age	Calibrated 2 sigma Calib 4.1
Muweilah, Area C	OZB802	Date seed	Destruction layer	2406 ± 134	810-197 BC
Muweilah, Area C	OZB803	Wood charcoal	Destruction layer	2427 ± 78	780-394 BC
Muweilah, Area C	OZB804	Date seed	Destruction layer	2488 ± 67	786-411 BC
Muweilah, Area C	OZB805	Wood charcoal	Destruction layer	2943 ± 182	1603-1555 BC (.013) 1539-792 BC (0.987)
Muweilah, Area C	OZB806	Wood charcoal	Destruction layer	2334 ± 116	788-163 BC (.996) 129-121 BC (.004)
Muweilah, Area C	OZB807	Wood charcoal	Destruction layer	2885 ± 144	1412-802 BC
Muweilah, Area C	Beta 116112	Wood charcoal	Destruction layer	2560 ± 60	828-505 BC (.965) 488-484 BC (.002) 464-413 BC (.033)
Muweilah, Area C	Beta 116117	Wood charcoal	Area C fire pit date	2680 ± 50	922-791 BC
Muweilah, Area C	Wk9243	Beam	Gateway beam	2650 ± 40	897-788 BC
Muweilah, Area C	Wk9244	Beam	Gateway beam	2530 ± 50	803-511 BC (.959) 463-419 BC (.040)
Muweilah, Area C	Wk9506	Wood charcoal	Sand deposit in deep wall area	2863 ± 68	1258-1234 BC (.028) 1216-894 BC (.940) 878-841 BC (.032)
Muweilah, Area C	Wk9572	Date seed	Pit in Building II	2568 ± 58	831-515 BC (.967) 486-485 BC (.001) 463-414 BC (.024)
Husn Awhala	Beta91469	Wood charcoal	Destruction beam	2610 ± 60	910-520 BC
Husn Awhala	Beta91467	Wood charcoal	Destruction beam	2610 ± 60	1000-760 BC
Husn Awhala	Beta91468	Wood charcoal	Destruction beam	2670 ± 60	1000-760 BC
Raki 2	Hd18743	-	-	2804 ± 53	1125-830 BC
Raki 2	Hd18790	-	-	2764 ± 32	996-830 BC
Raki 2	Hd18789	-	-	2864 ± 34	1205-1205 BC (.1) 1188-1181 BC (.11) 1148-1144 BC (.4) 1128-966 BC (.846) 964-921 BC (.138)
Raki 2	Hd18742	-	-	2787 ± 35	1003-834 BC
Raki 2	Hd18765	-	-	2807 ± 39	1048-835 BC
Hili 17	PA1926	-	-	2760 ± 40	997-828 BC
al-Thuqaibah	Ly8939	-	-	2640 ± 40	896-869 BC (.086) 864-846 BC (.037) 844-778 BC (.876)
al-Thuqaibah	Ly7762	-	-	2435 ± 70	775-398 BC

Table D. 24 C14 dates from Muweilah, Area C, Husn Awhala, Raki 2, Hili 17 & al-Thuqaibah (Magee 2003: 2-6; fig. 1-2, 5, 7)

Sample	Locus	Material	14c Age	Calibrated 2 sigma (σ)
WK11612	84009	Whole date	2562 ± 43	818–744BC (0.417) 724–539BC (0.577) 528–523BC (0.006)
WK12369	84009	Wood charcoal	2457 ± 49	762–408BC (1.000)
OZB802	2112	Date-seed	2406 ± 134	810–180BC (1.000)
OZB804	1505	Date-seed	2488 ± 67	788–411BC (1.000)
Wk 9572	12030	Date-seed	2568 ± 58	831–515BC (0.976) 486–485BC (0.001) 463–414BC (0.023)

Table D. 25 C14 dates on date-seeds, whole dates and wood charcoal from Muweilah. Dates calibrated with Calib 4.3 using the probability method (Magee 2004: 37, tables 1 & 2)

Sample	Locus	Material	14c Age	Calibrated 2 sigma (σ)
Averaged Date	84009 2112 1505 12030	Whole date and date-seeds	2540 ± 31	800–756BC (0.338) 716–540BC (0.662)

Table D. 26 Averaged C14 dates on date-seeds and whole dates from Muweilah Area C. Dates calibrated with Calib 4.3 using the probability method (Magee 2004: 38, Table 3)

Chantier	Niveau	Lab No.	¹⁴ C BP	Cal. Dat. BCE 1 sigma	Sample	Cal. BC/AD 2 sigma using OxCal 3.10
4	2a	Ly 3076	3110 ± 170	1599-1113	Charcoal	1750-900 BC
4	2a	Ly 3783	2970 ± 150	1428-945	Charcoal	1550-800 BC
1	Unique	Ly 3078	2860 ± 150	1307-833	Charcoal	1450-750 BC
1	Unique	Ly 3784	2860 ± 150	1240-903	Shell	1450-750 BC
2	1b	Ly 3077	2730 ± 150	1078-790	Charcoal	1350-400 BC
3	2a	Ly 3075	2740 ± 100	1010-800	Charcoal	1300-750 BC
2	1b or 2a	Ly 3781	2660 ± 120	970-664	Charcoal	1150-400 BC
2	2a?	Ly 3782	2610 ± 90	888-66	Charcoal	1000-400 BC
3	2a	Ly 3780	2580 ± 110	831-45	Charcoal	950-400 BC
3	2a	Ly 3079	2380 ± 110	761-390	Charcoal	800-200 BC
3	a or b	Ly 3078	2280 ± 110	410-210	Charcoal	800-50 BC

Table D. 27 C14 dates from EIA Rumaylah, half life 5568 years, calibrated: Stuiver & Becker 1987 (after Yule & Kazenwadel 1993: 256, Table 2): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Grave No.	Finds	Lab No.	¹⁴ C BP	Cal. Dat. 1 sigma	Sample	Cal. BC/AD 2 sigma using OxCal 3.10
S2113/1	Samad	Kn 3851	1090 ± 110	780-1020 CE	Bones	680-1160 AD
S2185	Samad	Kn 4058	1150 ± 80	775-984 CE	Bones	680-1020 AD
S2107	Samad	Kn 3868	1230 ± 95	670-938 CE	Bones	640-990 AD
S2113/4	Samad	Kn 3852	1330 ± 100	614-797 CE	Bones	530-900 AD 910-970 AD
S2615	Samad	Kn 4060	1470 ± 60	540-642 CE	Bones	430-670 AD
S101125	Samad	Blñ 2746	1500 ± 50	437-637 CE	Bones	430-650 AD
S2613	Samad	Kn 4059	1600 ± 60	392-538 CE	Bones	330-600 AD
S103	Samad/Lizq	Kn 4062	1640 ± 110	391-426 CE	Bones	130-620 AD
S2138/1-3	Samad	Kn 3839	1660 ± 100	255-533 CE	Bones	130-600 AD
S2137	Samad	Kn 3838	1790 ± 120	70-489 CE	Bones	50 BC-550 AD
S101128	Samad	Hd 8526-8711	2410 ± 80	762-398 BCE	Bones	780-370 BC
Lizq-1	Lizq	Kn 3499	2770 ± 160	1210-800 BCE	Charcoal	1400-500 BC

Table D. 28 C14 dates from LIA Samad and EIA Lizq, half life 5568 years, calibrated: Stuiver & Becker 1987 (after Yule & Kazenwadel 1993: 256, Table 3) dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Lab. No.	C ¹⁴	Calibrated 1 sigma (BP)	Probability
KIA2505	Fu10/1	10 ± 60	1954-1955 AD Fraction B Durchschnitt
KIA2507	Fu18	740 ± 340	985-1454 AD Fraction A Knochen.Rest mit Filter
KIA2506	Fu19	1500 ± 70	474-479 AD Fraction B Kollagen

Table D. 29 C14 dates from al-Fueda tombs at 'Amla area (after Yule 1999: 142):

Context	Lab. No.	Half-life 5568 BP	C ¹³	Calibrated 2 sigma (BC)	Sample
Section C	Hd-18743	2840 ± 53	- 24.52	1000-865	Charcoal
D above loc 8	Hd-18790	2764 ± 32	- 25.08	920-840	Charcoal
D r+1 above loc1	Hd-18789	2864 ± 34	- 24-21	1040-940	Charcoal
B fir place	Hd-18742	2787 ± 35	- 23.97	975-865	Charcoal
D r-1.4 m bel.surf.above loc4	Hd-18765	2807 ± 39	- 24.79	995-900	Charcoal

Table D. 30 C14 dates from Raki 2, Wadi Site, EIA find context, charcoal samples in stratigraphical order (after Weisgerber & Yule 1999: 115)

Lab. No.	Date Std	Cal BC/AD	Context	Cal. BC/AD 2 sigma using OxCal 3.10
Ly-3076	3110 ± 170	1299 ± 212	Ru4 2a	1750-900 BC
Hv-14589	3035 ± 85	1266 ± 120	Sarūj	1460-1020 BC
Ly-3783	2970 ± 150	1177 ± 185	Ru4 2a	1550-800 BC
Ly-3078	2860 ± 150	1016 ± 178	Ru "unique"	1450-750 BC
Ly-3784	2860 ± 100	1019 ± 136	Ru "unique"	1320-810 BC
Ly-3499	2770 ± 200	1005 ± 252	Lizq L1	1450-400 BC
Ly-3075	2740 ± 100	890 ± 95	Ru3 2a	1300-750 BC
Ly-3077	2730 ± 150	942 ± 192	Ru2 1b	1350-400 BC
Ly-3781	2660 ± 120	751 ± 183	Ru2 1b or 2a	1150-400 BC
Ly-3782	2610 ± 90	688 ± 145	Ru2 2a?	1000-400 BC
Ly-3780	2580 ± 110	667 ± 153	Ru3 2a	950-400 BC
Ly-3779	2380 ± 110	547 ± 175	Ru3 2a	800-200 BC
Ly-3778	2280 ± 110	269 ± 154	Ru3 a or b	800-50 BC

Table D. 31 C14 dates from the Early Iron Age in Oman, calibrated Stuiver et al. 1993 (after Yule & Weisgerber 2001: 36, Table 6): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Lab. No.	Date Std	Cal BC/AD	Context	Cal. BC/AD 2 sigma using OxCal 3.10
Hd-15851	2238 ± 58	277 ± 53	Am5	400-160 BC
KN-4439	2110 ± 65	105 ± 87	S104	360-270 BC 260 BC-20 AD
KN-3838	1930 ± 170	-121 ± 206	S2137-	400 BC-450 AD
KN-4062	1820 ± 110	-223 ± 127	S10103	50 BC-550 AD
KN-3839	1800 ± 150	-243 ± 166	S2138-	200 BC-600 AD
KN-4401	1770 ± 400	-247 ± 434	S2006	800 BC-1100 AD
KN-4059	1700 ± 55	-351 ± 67	S2613	210-470 AD 480-540 AD
Bln-2746	1640 ± 100	-443 ± 114	S101125	130-620 AD
KN-4060	1580 ± 60	-492 ± 63	S2615	340-610 AD
KN-3852	1460 ± 100	-592 ± 96	S2113/4	380-780 AD
KN-4400	1389 ± 42	-660 ± 32	S214	560-690 AD 750-770 AD
KN-4406	1320 ± 200	-766 ± 197	S2112-	250-1200 AD
KN-3868	1320 ± 95	-734 ± 94	S217	540-900 AD 910-950 AD
KN-4403	1300 ± 250	-772 ± 243	S2140	200-1300 AD
KN-4407	1280 ± 200	-800 ± 189	S2100	350-1200 AD
KN-4058	1240 ± 90	-792 ± 97	S2185	640-980 AD
KN-3851	1210 ± 110	-843 ± 114	S2113/1+2	630-1030 AD
KN-4409	1187 ± 43	-853 ± 68	S2135B	690-750 AD 760-970 AD
KN-4398	1110 ± 60	-946 ± 62	S2127/1	770-1030 AD
KN-3837	1030 ± 180	-1034 ± 17	S2013	650-1300 AD
KN-4408	994 ± 63	1074 ± 7	S2127/2	890-1190 AD

Table D. 32 C14 dates from the Late Iron Age in Central Oman, calibrated Stuiver et al. 1993 (after Yule & Weisgerber 2001: 37, Table 7): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Site	TL-sample	Material	Kind of TL	TL date	Culture
Lizq L1	12a2	Pottery	Fine grain	1180 BCE \pm 250	Lizq
Lizq L1	12a1	Pottery	Fine grain	390 BCE \pm 190	Lizq
Maysar M42 2	10a1	Pottery	Fine grain	280 BCE \pm 170	Lizq
Maysar M43 4	10e1	Pottery	Fine grain	960 BCE \pm 210	Lizq
Maysar M34 6	10k11	Pottery	Fine grain	40 CE \pm 150	Lizq

Table D. 33 Thermoluminescence assays from EIA contexts at al Maysar, Lizq (after Yule & Weisgerber 2001: 38, Table 8)

Lab. No.	Date Std	Cal BC/AD	Context	Cal. BC/AD 2 sigma using OxCal 3.10
Ly-3076	3110 \pm 170	1299 \pm 212	Ru4 2a	1750-900 BC
Ly-3783	2970 \pm 150	1177 \pm 185	Ru4 2a	1550-800 BC
Ly-3784	2860 \pm 100	1019 \pm 136	Ru "unique"	1320-810 BC
Ly-3077	2730 \pm 150	942 \pm 192	Ru2 1b	1350-400 BC
Ly-3075	2740 \pm 100	890 \pm 95	Ru3 2a	1300-750 BC
Ly-3781	2660 \pm 120	751 \pm 183	Ru2 1b or 2a	1150-400 BC
Ly-3782	2610 \pm 90	688 \pm 145	Ru2 2a?	1000-400 BC
Ly-3780	2580 \pm 110	667 \pm 153	Ru3 2a	950-400 BC
Ly-3779	2380 \pm 110	547 \pm 175	Ru3 2a	800-200 BC
Ly-3778	2280 \pm 110	269 \pm 154	Ru3 a or b	800-50 BC
Hv-14589	3035 \pm 85	1429 \pm 1114	Saruj	1460-1020 BC
Kn-3499	2770 \pm 200	1210 \pm 800	Lizq-1	1450-400 BC
Ly-3078	2860 \pm 150	1016 \pm 178	Ru "unique"	1450-750 BC

Table D. 34 C14 dates for Lizq/Rumaylah, calibrated: Stuiver et al. 1993 (after Yule 2001a: 148, Table 6.4): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Lab. No.	Date Std	Cal BC/AD	Context	Cal. BC/AD 2 sigma using OxCal 3.10
Bln-2746	1640 \pm 100	-443 \pm 114	S101125	130-620 AD
KN-4062	1820 \pm 110	-223 \pm 127	S10103	50 BC-550 AD
KN-4401	1770 \pm 400	-247 \pm 434	S2006	800 BC-1100 AD
KN-3837	1030 \pm 180	-1034 \pm 177	S2013	650-1300 AD
KN-4407	1280 \pm 200	-800 \pm 189	S2100	350-1200 AD
KN-3868	1320 \pm 95	-734 \pm 94	S2107	540-900 AD; 910-950 AD
KN-4406	1320 \pm 200	-766 \pm 197	S2112	250-1200 AD
KN-3851	1210 \pm 110	-843 \pm 114	S2113/1+2	630-1030 AD
KN-3852	1460 \pm 100	-590 \pm 96	S2113/4	380-780 AD
KN-3838	1930 \pm 170	-121 \pm 206	S2137	400 BC-450 AD
KN-3839	1800 \pm 150	-243 \pm 166	S2138	200 BC-600 AD
KN-4403	1300 \pm 250	-772 \pm 243	S2140	200-1300 AD
KN-4398	1110 \pm 60	-946 \pm 62	S2127/1	770-1030 AD
KN-4058	1240 \pm 90	-792 \pm 97	S2185	640-980 AD
KN-4059	1700 \pm 55	-351 \pm 67	S2613	210-470 AD; 480-540 AD
KN-4060	1580 \pm 60	-492 \pm 63	S2615	340-610 AD
KN-4408	994 \pm 63	-1074 \pm 70	S2127/2	890-1190 AD
KN-4409	1187 \pm 43	-853 \pm 68	S21358	690-750 AD; 760-970 AD
KN-4400	1389 \pm 42	-660 \pm 32	S2104	560-690 AD; 750-770 AD
KN-4439	2110 \pm 65	105 \pm 87	S104	360-270 BC; 260 BC-20 AD
Hd-15851	2238 \pm 58	277 \pm 75	Am5	400-160 BC

Table D. 35 C14 dates for Samad, calibrated: Stuiver et al. 1993 (after Yule 2001a: 150, Table 6.5): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Lab. No.	Date Std	Cal BC/AD	Cal. BC/AD 2 sigma using OxCal 3.10
KN-4405	1780 ± 200	-279 ± 221	250 BC-700 AD
KN-3850	1755 ± 50	-309 ± 65	130-400 AD
KN-4120	2100 ± 120	86 ± 151	400 BC-150 AD
Bln-2746	1640 ± 100	-443 ± 114	130-620 AD
KN-4062	1820 ± 110	-223 ± 127	50 BC-550 AD
KN-4401	1770 ± 400	-247 ± 434	800 BC-1100 AD
KN-3837	1030 ± 180	-1034 ± 177	650-1300 AD
KN-4407	1280 ± 200	-800 ± 189	350-1200 AD
KN-3868	1320 ± 95	-734 ± 94	540-900 AD 910-950 AD
KN-4406	1320 ± 200	-766 ± 197	250-1200 AD
KN-3851	1210 ± 110	-843 ± 114	630-1030 AD
KN-3852	1460 ± 100	-590 ± 96	380-780 AD
KN-3838	1930 ± 170	-121 ± 206	400 BC-450 AD
KN-3839	1800 ± 150	-243 ± 166	200 BC-600 AD
KN-4403	1300 ± 250	-772 ± 243	200-1300 AD
KN-4398	1110 ± 60	-946 ± 62	770-1030 AD
KN-4058	1240 ± 90	-792 ± 97	640-980 AD
KN-4059	1700 ± 55	-351 ± 67	210-470 AD 480-540 AD
KN-4060	1580 ± 60	-492 ± 63	340-610 AD
Ly-3076	3110 ± 170	1299 ± 212	1750-900 BC
Ly-3783	2970 ± 150	1177 ± 185	1550-800 BC
Ly-3784	2860 ± 100	1019 ± 136	1320-810 BC
Ly-3077	2730 ± 150	942 ± 192	1350-400 BC
Ly-3075	2740 ± 100	890 ± 95	1300-750 BC
Ly-3781	2660 ± 120	751 ± 183	1150-400 BC
Ly-3782	2610 ± 90	688 ± 145	1000-400 BC
Ly-3780	2580 ± 110	667 ± 153	950-400 BC
Ly-3779	2380 ± 110	547 ± 175	800-200 BC
Ly-3778	2280 ± 110	269 ± 154	800-50 BC

Table D. 36 C14 dates for Samad, calibrated: Stuiver et al. 1993 (after Yule 2001a: 151, Table 6.6): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Lab. No.	Date Std	Cal BC/AD	Cal. BC/AD 2 sigma using OxCal 3.10
Bln-2746	1640 ± 100	-443 ± 114	130-620 AD
KN-4120	2100 ± 120	86 ± 151	400 BC-150 AD
KN-4062	1820 ± 110	-223 ± 127	50 BC-550 AD
KN-4401	1770 ± 400	-247 ± 434	800 BC-1100 AD
KN-3837	1030 ± 180	-1034 ± 177	650-1300 AD
KN-4407	1280 ± 200	-800 ± 189	350-1200 AD
Bln-3868	1320 ± 95	-734 ± 94	540-900 AD; 910-950 AD
KN-4406	1320 ± 200	-766 ± 197	250-1200 AD
KN-3851	1210 ± 110	-843 ± 114	630-1030 AD
KN-3852	1460 ± 100	-590 ± 96	380-780 AD
KN-4405	1780 ± 200	-279 ± 221	250 BC-700 AD
KN-3838	1930 ± 170	-121 ± 206	400 BC-450 AD
KN-3839	1800 ± 150	-243 ± 166	200 BC-600 AD
KN-4403	1300 ± 250	-772 ± 243	200-1300 AD
KN-4398	1110 ± 60	-946 ± 62	770-1030 AD
KN-4058	1240 ± 90	-792 ± 97	640-980 AD
KN-3850	1755 ± 50	-309 ± 65	130-400 AD
KN-4059	1700 ± 55	-351 ± 67	210-470 AD; 480-540 AD
KN-4060	1580 ± 60	-492 ± 63	340-610 AD
Ly-3076	3110 ± 170	1299 ± 212	1750-900 BC
Ly-3783	2970 ± 150	1177 ± 185	1550-800 BC
Ly-3078	2860 ± 150	1016 ± 178	1450-750 BC
Ly-3784	2860 ± 100	1019 ± 136	1320-810 BC
Ly-3077	2730 ± 150	942 ± 192	1350-400 BC
Ly-3075	2740 ± 100	890 ± 95	1300-750 BC
Ly-3781	2660 ± 120	751 ± 183	1150-400 BC
Ly-3782	2610 ± 90	688 ± 145	1000-400 BC
Ly-3780	2580 ± 110	667 ± 153	950-400 BC
Ly-3779	2380 ± 110	547 ± 175	800-200 BC
Ly-3778	2280 ± 110	269 ± 154	800-50 BC

Table D. 37 C14 dates from late EIA and LIA contexts, calibrated: Stuiver et al. 1993 (after Yule 2005: 309, Table 7): dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.10

Location	Type of Evidence
Tell Abraq (UAE)	Coin.
Ed-Dur (UAE)	Area F fortress, occupation, & tombs.
Gallah (UAE)	Two coins.
Gallah (UAE)	Burials.
Jazirat Siniyah (UAE)	Small coastal settlement.
Mleiha (UAE)	Occupation in and around fort.
Jebel al-Emaileh (UAE)	Burials with weaponry and armour.
Kush (UAE)	Occupation.
Khatt (UAE)	Occupation.
Shimal (UAE)	Stamp seal & sherds in a tomb.
J. al-Ghanem (N. Oman)	Occupation.
Fujairah (UAE)	Hoard of 18 silver coins.
Sharm (UAE)	Pot in earlier grave.
°Arja (Oman)	C14 date on roasting pit associated with copper smelting.
°Arja (Oman)	C14 date & assemblage of Sasanian/Early Islamic pottery associated with a building.
Samad (Oman)	A tomb containing a 3 rd century balsamaria.
Bur al-Jasah (Oman)	Settlement with a Sasanian-period seal.
Sinaw (Oman)	Six coins in a 9 th century hoard.

Table D. 38 Reliable Sasanian period finds from the Oman Peninsula (after Kennet 2007: 90, Table 1)

Location	Type of Evidence	Reliability
Abu Dhabi Islands (UAE)	Occupation of 3 rd /4 th century at Ras Bilyaryar, Yasat al-‘Ulya’, Yasat al-Sufla’, Ufsayya, Dalma, Faza’iya, Ghagha and Qarnein.	A
Sir Bani Yas (UAE)	Nestorian church/monastery.	A
Hulaylah (UAE)	Occupation in areas C & D.	A
Jumayrah (UAE)	Settlement.	A
Tell Abraq (UAE)	Possible LISV, Fine Orange Painted ware (FOPW) and fine grey wares.	B
Ras al-Khaimah (UAE)	Rural pottery scatter based on LISV & Honeycomb.	B
Salihya (UAE)	Sherds of Sasanian-Islamic pottery.	B
Wadi Safad (UAE)	Site at Wadi Safad.	C
Samad & other sites (Oman)	Tombs and ‘culture’.	A
Suhar (N. Oman)	Occupation - urban centre/port?	A
Rustaq (Oman)	Fort said to have been built during time of Khusraw I.	B

Table D. 39 False and uncertain Sasanian period finds from the Oman Peninsula (A: Not or unlikely to be Sasanian, B: Possibly Sasanian, but could be either later or earlier, C: Impossible to verify) (after Kennet 2007: 91, Table 2)

Pottery Class	Sites	Proposed Date
Chinese: Blue-on-White porcelain, Late Ming, celadon	Julfar near al-Mataf- Salihyah- Husayy-	15 th century
	Muwaylaha- Beit al-Mundhaha, Khawran- Idhn (site a)	Late 16 th century
	Dhayah	17 th century or later
	Ash-Sha’m (al-Fai)	18 th century or later
Underglaze painted ware: Blue/black under turquoise, Brown under pale green, Islamic underglaze	Ash-Sha’m (al-Fai)-Dhayah- Shimal- Julfar near al-Mataf- Muwaylaha- Husn Ghalilah- Beit al-Mundhaha,- Khawran- Idhn (site a)- Husayy	Post-Medieval (16 th century)
	Salihyah	Islamic and Post-Medieval
Unglazed hand-mad painted pottery and plain ware: Julfar-ware & Later ware	Ash-Sha’m (al-Fai)	17 th -18 th centuries
	Dhayah- Shimal- Julfar near al-Mataf- Kashm Nadir-Muwaylaha- Husn Ghalilah- al-Khatt (site a)- Idhn (site a)	15 th -16 th (Julfar) & 17 th -18 th (Later ware) centuries
	Beit al-Mundhaha, Khawran- Salihyah	17 th century or later
	Siji	18 th century or later
	Inland From Jebel Do	
	Husayy	15 th -16 th centuries
Incised ware	Ash-Sha’m (al-Fai)- Dhayah- Julfar near al-Mataf- Kashm Nadir- Muwaylaha- Salihyah- al-Khatt (site a)- Husayy	No date was given
Far Easternwares: green and brown glazed stoneware, blue-on-white porcelain, celadon, Martabani jars, Mottled brown glazed, Olive green glazed	Shimal - Julfar near al-Mataf- Kashm Nadir- Beit al-Mundhaha, Khawran- Qurayyah (site b) al-Khatt (site a)	? 15-17 th centuries
Persian: Kerman blue-on-white ware + imitation Celadon + Peacock-blue glazed ware	Julfar near al-Mataf- Kashm Nadir- Salihyah- al-Khatt (site a)- Husayy	17 th century
Later Sgraffiato ware	Salihyah- Qurayyah (site b)	?12 th -13 th centuries

Table D. 40 Pottery types found during the Northern Trucial States survey and their sites as well as proposed date by de Cardi & Doe in 1971

Class	Proposed date	Sites found	Comparable Sites
Ghanam “Coarse Ware”	Parthian-Sasanian (Yahya I & IA), c. 0- 500 A.D.	Ghanam Island	Minab, Tepe Yahya
Fine Orange Painted Ware	Yahya (Yahya I-II & IA)	Ghanam Island	Minab, Tepe Yahya, Rudbar, Rishahr
Fine Orange Plain Ware	-	Ghanam Island, Old Ghubb ‘Ali	-
Green Glazed Wares	(Sasanian-Islamic) Early 9 th -11 th & 15 th - 16 th centuries onwards	Ghanam Island, Old Ghubb ‘Ali, Bidi, Khasab, Qabal, Sayl al Asfal, Shriyah, Huwaini, Salallah, Wadi Maqaqah	Siraf, Kerman
Sgraffiato wares	11 th -14 th centuries	Old Ghubb ‘Ali, Dabshun, Sayl al Asfal	Siraf, Minab/Jiruft
Other Glazed Wares	12 th -14 th & 16 th -18 th centuries	Shamm, Bidi, Khasab, Dib Dibbah, Bukha, Huwaini, Sayl al Asfal	Ras al-Khaimah, Kashm Nadir, East African coast, lower Gulf
Underglaze Painted pottery	Post-medieval	Al Japi, Bukha, Ra’s Sheikh Mas’ud, Khasab, Bidi, Mina’ Sitt, Shamm village, Wadi Makhus	Ras al-Khaimah, Siraf
Chinese Porcelain and Far Eastern Stonewares	12 th -16 th centuries + K’ang-hsi period (1662-1722)	Shariyah, Khasab, Sayl al Asfal, Mukhi, Maqlab isthmus, Dib Dibbah, Wadi Maqaqah	Julfar, Fukien, south-east Asia, Indonesia, Siraf, south-east Asia
Coarse Incised Ware	Sasanian Period (11 th -12 th & 14 th centuries	Old Ghubb ‘Ali, Sayl al Asfal, Shamm	Siraf, Dasht-I Deh
Fine Stamped and Incised Wares	Early 13 th -14 th century onwards	Khasab, Qabal, Wadi al ‘Ayn, Old Ghubb ‘Ali, Dabshun	Minab, Shahri-i-Daqianus, Jiruft
Unglazed Painted Pottery	Portuguese period + 14 th -16 th centuries	Salallah, Sayl al Asfal, Qabal, Bukha, Ra’s Sheikh Mas’ud, Dib Dibbah, Jebel, Khasab, Bidi, Mina’ Sitt, Shamm, Shariyah, Huwaini	Ras al-Khaimah (Ash- Sha’m, Idhn, Kashm Nadir, Julfar, Wadi Haqil), Minab
Coarse pottery	Early 9 th & 15 th -18 th centuries	Bidi, Dabshun, Ra’s Sheikh Mas’ud, Huwaini, Al Jadi, Wadi al ‘Ayn, Sayl al Asfal Salallah, Old Ghubb ‘Ali, Shamm, Mina’ Sitt, Jebel Khasab, Wadi Shariyah, Qabal, Dib Dibbah, Khasab	Siraf, Gulf sites, Minab, Kashm Nadir, Strait of Hormuz

Table D. 41 Surface Islamic pottery types found during the northern Oman survey together with their sites, proposed date and parallels from other sites by de Cardi in 1975

Site	Pottery Class/description	Proposed date
Ghalilah Site 37b	Coarse hand-made grass-marked red ware, buff fabric with a black/brown slip large carinated vessel- pinkish-red ware, soft greyish-buff ware, olive green glaze on a grog-backed red ware, red grass-marked ware with orange-red slip.	-
Wadi Ghalilah Site 37c	Jar or jug in a gritty hand-made red ware with buff-tan slip	Pre-15 th century Julfar-war from al-Mataf
	hand-made pinkish ware with smooth surface and dark brown slip and incised decoration	Sasanian
Wadi Rahabah Site 38a	Small bowl, buff ware, concave based bowls and cups	-
Dhayah, Site 39b	Sandy tan ware covered by a creamy-buff slip, unglazed Early Islamic wares	-
Shimal, Site 40b	funerary wares, painted wares, grass-marked ware, buff-tones, bowls in red and tan-buff fabric, bowl of orange-red slip painted, plain and painted wares, coarse pottery such as hand-made in a soft sandy paste with small grits, surface with grass-marked, brown, cream and buff slips, gritty brown-slipped buff ware	-
	high necked jar	Late or Post Achaemenian date
Shimal, site 40c	Coarse hand-made wares: globular jar in sandy grass-marked buff-tan ware, brown-slipped ware, thick pinkish-red grass-marked ware, heavy domestic vessels (jars and bowls) with flat bases, soft pinkish-buff ware, thin well-made tan ware.	Most are 1 st mill. B.C.
Shimal site 40e	Medium thin buff ware with blue glaze on both sides, gritty maroon-slipped red ware, pinkish-buff ware, thick red-slipped red ware.	Sasanian to Early Islamic & Portuguese periods
Tawi Burayrat sites 42a & b	White-gritted red ware fired to brown (ovoid cooking-pots with tan slip, hole-mouth pot with thickened rim, hand-made in a red ware vessels with cream-slip and painted with thin vertical maroon strips	Late 15 th -18 th centuries A.D.
al-Khatt site 16b	Small bowls of sandy red ware with maroon paint, black, dark brown or maroon-slipped vessels, large jars, vessels with internal lid seating, incised jar, small bowls, heavy coarse wares and vessels encircled by one or more flattened bands, cream slips red ware vessels, red ware of heavily gritted with white or black stones	-
al-Khatt site 45a & b	Early Islamic & local wares, Far Eastern stone-wares, Islamic wares, Splash glaze ware (Sgraffiato), Egg-shell ware, and white "tin" glaze ware, unglazed and coarse ware.	-

Table D. 42 Pottery types found during the Ras al-Khaimah survey together with their sites and proposed date by de Cardi in 1985

Pottery Class	Description	Proposed Date	Sites found
Turquoise glaze ware	Fine cream ware with thick glaze of pale green to blue/turquoise glaze	Post-Iron Age to 14 th century A.D.	29, 17, 18, 19, 37, 39, 46, 53, 56 & 62
Turquoise & black underglaze painted ware	Fine cream ware with painted black geometric design & pale green to turquoise glaze	Early 12 th -ealy 13 th centuries A.D.	33
Kunj or Bahla ware	Fine light olive green to greenish/brown in colour	18 th century A.D.	18, 35, 48 & 61
Sgraffiato	Only one type recorded of fine pale pink-buff fabric with pale green or brown slip & incised decoration	-	40, 53. & 60
Julfar unglazed painted ware	Red/orange wheel-made ware	16 th -17 th centuries	1, 6, 34, 12, 17, 18, 19, 53, 55, 56, 60, 61, 62, 63, 64, 65, 66 & 67

Table D. 43 Pottery classes together with their sites, description and their proposed date by the Swiss survey project in Northern Fujairah (Brass & Brittin 2004)

Phase	Dating	Development/Decline
III	9 th /10 th cent. A.D	The inland belt of intensive cultivation was irrigated by wells and Aflaj. Zone D, the zone of sedimentation, is deemed to be within this Phase of cultivation. The occupied area of Sohar town extended over at least 73 Ha. Sohar had its peak growth in the 9 th /10 th century and the initial phases of its decline.
IV	11 th /12 th cent. A.D	A distinct decline in the cultivate area was occurred. Zone C1 was abandoned while Zone C2 was still in use. The Sohar occupied area was decreased to around 18 Ha.
V	13 th -15 th cent. A.D.	Sohar had witnessed its decline, the shift of trade from Sohar to the port of Muscat
VI	17 th -20 th cent. A.D.	The development of the <i>zajarah</i> well gardens inland of the palm gardens by the 17 th /18 th centuries. The development of the Burj Muwaylah system at the same time.
VII	Mid 1970s	The abandonment of all the <i>zajarah</i> wells inland of the recent palm gardens.
VIII	Mid 1980s	Rapid expansion in palm gardens after the development of using drilled or excavated deep pumped wells inland of the new Muscat-Shinas road.

Table D. 44 Proposed Islamic sequence (Middle to recent times) during the hinterland Sohar by Costa & Wilkinson TJ (1987)

Period	Phases	Date	Evidence
VIII	E-11	Late 16 th -early 17 th	CBW in this period is datable to the late 16 th /early 17 th century; post al-Mataf JULFAR rim forms (post 1565 AD)
VII	E-10	13 th (possibly to 14 th)	Some of the DHM in this period is probably not produced until the 13 th century; LQC can be dated late 13 th /14 th century
VI	E-09	12 th	Much of the Chinese ceramics is 11 th or possibly 12 th century
V	E-08 & E-07	Late 11 th /early 12 th	First GGW and CWW; one sherd of CWW can be dated late 11 th century at the earliest; first GGRAF; first FRIT (excluding a probably intrusive sherds in Phase E-06)

Table D. 45 Dating the Kush Middle and Late Islamic sequence (after Kennet 2004: 14, Table 2)

Site	Phase/Period	Date
Kush	K-VIII	16 th /17 th century
al-Mataf	M-Rec	16 th /17 th century
	M-VI	Late 16 th century
	M-V	16 th century
	M-IV	16 th century
	M-III	Late 15 th /16 th century
	M-II	14 th -15 th century
	M-I	Late 14 th century
	M-Pre	Early/mid 14 th century
Kush	K-VII	13 th century
	K-VI	12 th century
	K-V	Late 11 th /12 th century
	K-IV	9 th /11 th century
	K-III	8 th /9 th century
	K-II	7 th /8 th century
	K-I	5 th /6 th century

Table D. 46 Kush Periods and al-Mataf Phases showing proposed dates (after Kennet 2004: 68, Table 28)

	Periods	British Phase	British Event	British Pottery	British Dating	Japanese Phase	Japanese Level	Japanese Event	Japanese Pottery	Japanese Dating	Hansman	Vogt
1	Growth	Pre	Earliest settlement		Early/mid 14 th ?	1	7	Earliest settlement, post holes & pits		Early/mid 14 th ?	I-III	?
		I	First mudbrick mosque		14 th /early 15 th							
		II	Mosque grows		14 th /early 15 th	2C	6C	First mudbrick	First CBW	Latter half of 14 th /early 15 th	IV	II
2	Peak	III	Mosque grows	First CBW	Early 15 th -16 th	2B	6B	Mudbrick structures				
						2A	6A	Dense urban plan				
3	Decline	IV	Mosque grows, first mortar mosque, occupation area out of use		16 th	3	4,5	Slight population decline?				III
		V	Mosque declines for first time		16 th	4	3	Population decline, urban decline: post-hole structures being				
4	Post-urban	IV	Post-hole phase		Mid 16 th ?	5	1,2	Post-hole phase		Mid 16 th ?	V	IV
5	Abandonment	Rec	Top soil			Surface		Top soil				?

Table D. 47 A synthesis of the main excavated sequences from al-Mataf (after Kennet 2003: 115, Table 3)

Depth (cm)	Lab. Code.	Uncal.14C Age	OSL Age kyr	Age Cal. yr BP (2σ)	Age Cal. yr BC (2σ) using OxCal 3.10
60	Awafi 1	–	4.10±0.24	4600–3600	2650-1650
100	Poz-3933	4670±40	–	5580–5310	3630-3590 3530-3360
150	Poz-3881	5190±50	–	6170–5750	4230-4200 4170-4090 4080-3930 3880-3800
170	Poz-3882	6800±50	–	7470–7570	5780-5620
190	Poz-3934	7040±40	–	7950–7750	6010-5840
230	Poz-3529	7170±50	–	8110–7880	6210-6130 6120-5970 5950-5920
240	Poz-3685	7240±40	–	8350–8060	6220-6020
270	Awafi 2	–	17.65±1.79	21450–13950	19500-12000

Table D. 48 Absolute ages from Awafi, Ras al-Khaimah, United Arab Emirates (OSL and 14C) (Calibration of ages is based on OxCal 3.9) (after Parker et al 2006: Table 2, page 469); dates are recalibrated by the resercher using 2 sigma (last column) based on OxCal 3.

APPENDIX E: RECORDING FORMS

APPENDIX E: RECORDING FORMS

This appendix is designated to show all the forms used during the project either for recording sites or finds in the field or in the lab.

E.1- FORMS USED IN RECORDING SITES:

General Survey Site List

Sheet No:

[illegible]

Form E. 1 designated to include all the sites/areas surveyed during level tow of Wadi Andam Survey

Control Survey Site List

Sheet No:

[illegible]

**Form E. 2 designated to include all the sites/areas selected for the control survey
(Level three of Wadi Andam Survey)**

Area Recording Form

Site No:

GPS:

/

Date:

Type of Site:

Wadi

Date palm

Other

Type of Feature

Tomb

Tomb field

Pottery collection area

Date palm village

other

Approximate Size:

Pottery collected:

Yes

No

Description:

Photographs taken:

Sub-sites number and definition:

1		6	
2		7	
3		8	
4		9	
5		10	

Form E. 3 designated to include a description of the nature of area selected for survey

General Survey Area Description

General Sample No:

Date:

Area Name:

UTM co-ordinates of sample limits:

Type of area: Wadi Date palm village Other _____

Days used for sample:

Methodology (foot, car, etc):

Description of Sample:

Notes:

**Form E. 4 designated to include a description of the area selected for general survey
(level two of Wadi Andam Survey)**

Control Survey Area Description

Control Sample No:

Date:

Area Name:

UTM co-ordinates of sample limits:

Type of area: Wadi Date palm village Other _____

Days used for sample:

Methodology (foot, car, etc):

Description of Sample (show sketch map if possible):

Reason chosen:

Notes:

**Form E. 5 designated to include a description of the site recorded during level Three
of Wadi Andam Survey**

Site Type List

Sheet No:

Type: Description:
Type: Description:
Type: Description:
Type: Description:
Type: Description:

Form E. 6 designated to include a description of the site/feature type recorded during level Three of Wadi Andam Survey

Tomb Type List

Sheet No:
Tomb Type:
Date Defined:
Description:

Sites found:

Notes:

**Form E. 7 designated to include a description of the tomb's types recorded during
level Three of Wadi Andam Survey**

Photograph Recording List

Sheet No:

[illegible]

Form E. 8 designated to include a description of photos taken to each site/feature during level Three of Wadi Andam Survey

E.2- FORMS USED FOR POTTERY AND OTHER FINDS:

Pottery Class List

Sheet No:

[illegible]

Form E. 9 designated to include a list of pottery classes roughly defined during the level Three of Wadi Andam Survey

Pottery Collection Count Sheet

Notes:

Date:

[illegible]

Form E. 10 designated to include the total number of pottery sherds of each class

Pottery Class Description

Class Name:

Brief Description: (e.g. glazed, slip, porcelain, wheel-made, hand-made, coarse):

Proposed date: (e.g. Ubaid, Hafit, Umm an-Nar, Wadi Suq):

Date Defined:

Common or Rare:

Sherds collected for transport to UK:

Photo Taken:

Notes:

Form E. 11 designated to include a description of each pottery class

Other Finds Count Sheet

Area No:

Date:

Notes:

[illegible]

Form E. 12 designated to include the total number and a brief description of other finds recorded during the level Three of Wadi Andam Survey

E.3- FORMS USED IN IDENTIFYING AND CLASSIFYING POTTERY:

[illegible]

**Form E. 13 designated as a list and brief description of the classified pottery sherds
to be entered in the pottery database**

Pottery Ware Fabric Types Description

NAME OF GROUP:

DATE:

Main Feature(s):

Period: HF UN WS LB EIA LIA HELL/PARTH SAS ISL

Grade: Coarse Fine

Fracture: Conchoidal Smooth Rough

Firing: Hard Medium Soft

Colour: SURFACE:
SANDWICH:
CORE:

Inclusions:

COLOUR	SHAPE	%	SIZE

Quantity:

Other Notes:

Form E. 14 designated to include a description of each classified fabric's type for the pottery sherds

Pottery Form Types Description

NAME OF TYPE:

DATE:

Period: HF UN WS LB EIA LIA HELL/PARTH SAS ISL

Main Feature(s):

Identified Sherds:

[illegible]

Other Notes:

Form E. 15 designated to include a description of the pottery forms

Pottery Decoration Types Description

NAME OF TYPE:

DATE:

Period: HF UN WS LB EIA LIA HELL/PARTH SAS ISL

Main Feature(s):

Identified Sherds:

[illegible]

Other Notes:

Form E. 16 designated to include a description of pottery decoration and surface treatment

APPENDIX F:

SITES TRANSLITERATION

APPENDIX F: SITES TRANSLITERATION

This appendix is designated as a list of all the sites' names mentioned within this thesis, either those recorded by the Wadi Andam Survey or those important ones recorded by other survey projects. Sites' names are spelt according to their pronunciation in the local dialect. This is in order to provide a 'reader guide' that makes it easy to spell the correct names of sites/locations as well as to be as a guide for any future works that might cite or refer to these sites. Sites' transliteration in this appendix is based on that used by the *Proceedings of the Seminar for Arabian Studies*, which follows the following standard:

ء	و	ج	j	ذ	d	ش	š	ظ	z	ق	q	ن	n
ب	b	ح	h	ر	r	ص	ṣ	ع	ʿ	ك	k	ه	h
ت	t	خ	ḥ	ز	z	ض	ḍ	غ	g	ل	l	و	w
ث	ṭ	د	d	س	s	ط	ṭ	ف	f	م	m	ي	y

The sites are listed in alphabetical order as the following:

Site In English	Arabic Transliteration	Site in Arabic
Abayah	ʿAbāyah	عباية
Abu al-Abyadh	Abw al-Abyaḍ	أبو الأبيض
Abu Dhabi	Abw Ḍaby	أبو ظبي
ad Daffah	ad Daffah	الدفة
ad Dariz	ad Darīz	الدريز
Adam	Adam	أدم
Aflaj	al-Aflāj	الأفلاج
Aflaj al-Budu	Aflāj al-Badw	أفلاج البدو
Ahin	ʿĀhin	عاهن
Ain al-Faidha	ʿAin al-Fāyḍah	عين الفايدة
Aint	ʿAint	عننت
Ajman	ʿAjmān	عجمان
Akab	ʿAqāb	عقاب
Akhdar al-ʿAkaba	Aḥḍar al-ʿAqabah	أخضر العقبة
al-Aʿyoon	al-ʿUywn	العيون
al-Ain	al-ʿAin	العين
al-Alayah	al-ʿAlāyah	العلية
al-Alya	al-ʿŪliā	العليا
al-Amqat	al-ʿAmqāt	العمقات
al-Aqir	al-ʿŪqr	العقر
al-Araqi	al-ʿArāqy	العراقي
al-Aryam	al-Aryām	الأريام
al-Ashkharah	al-Ašḥarah	الأشخرة
al-Batin	al-Bāṭin	الباطن
al-Batinah	al-Bāṭynah	الباطنة
al-Bayda	al-Bayḍā	البيضا
al-Bidya	al-Bidyah	البيديه
al-Buhais	al-Būḥaiṣ	البحيص
al-Buraimi	Al-Būraimy	البريمي
al-Bustan	al-Bustān	البيستان
al-Dhahirah	al-Zāhirah	الظاهرة

al-Dhakhilyah	al-Dāḥilyah	الداخلية
al-Fueda	al-Fweida	الفويدة
al-Fulayj	Fulayj	الفليج
al-Ghalilah	al-Ġalīlah	الغليله
al-Ghoryeen	al-Ġoryēen	الغريين
al-Gubra	al-Ġubrah	الغبرة
al-Haddah	al-Ḥaddah	الحده
al-Hail (Hayl)	al-Ḥail	الحيل
al-Hajar Mountains	Jibāl al-Ḥajar	جبال الحجر
al-Hajir	al-Ḥājir	الحاجر
al-Hamra	al-Ḥamrā	الحمراء
al-Hamriyah	al-Ḥamriyah	الحمرية
al-Hind	al-Hind	الهند
al-Hubat	Lu-Ḥbāt	الحباط
al-Hubi	al-Ḥuby	الحبي
al-Huqf	al-Ḥuqf	الحقف
al-Jabeeb	al-Jabīb	الجبيب
al-Jauf	al-Jawf	الجوف
al-Jinah	al-Jināh	الجناه
Al-Jumaira	al-Jumaira	الجميرا
al-Kamil Wa al-Wafi	al-Kāmil Wa al-Wāfi	الكامل والوافي
al-Kharma	al-Ḥarmā	الخرماء
al-Khashibah	al-Ḥašibah	الخشبه
al-Khat (Khatt)	al-Ḥat	الخت
al-Khawd	al-Ḥawḍ	الخوض
al-Khuraish	al-Ḥuraiṣ	الخريص
al-Madam	al-Madām	المدام
al-Majazah	al-Majāzah	المجازة
al-Manzifah	al-Manzifah	المنزفه
al-Mataf	al-Maṭāf	المطاف
al-Mudhaybi	al-Muḍayby	المضيبي
al-Mudhayrib	al-Muḍayrib	المضيرب
al-Muqatta	al-Muqaṭā	المقطا
al-Musala	al-Muṣalā	المصلى
al-Musfah	al-Musfāh	المسفاه
al-Niba'	al-Nabʿa	النبع
al-Qabil	al-Qābil	القابل
al-Qaryatain	al-Qaryatain	القريتين
al-Qassimiya	al-Qāsimiyah	القاسمية
al-Qusais	al-Quṣaiṣ	القصييص
al-Rabi	al-Rāby	الرابي
al-Rams	ar Rams	الرمس
al-Rawadhah	Ar Rawḍah	الروضة
al-Saruj	al-Šārwj	الصاروج
al-Sayab (Assayab)	al-Sayāb	السياب
al-Shari'ah	al-Šarīʿah	الشريعة
al-Shariq	al-Šāriq	الشارق
al-Sharqiyah	al-Šarqyah	الشرقية
al-Sila'	al-Silʿa	السلع
al-Sufouh	al-Šafwah	الصفوه
al-Thabiti	al-Ṭābity	الثابتي
al-Thuqaibah	al-Ṭuqaibah	التقيبه
al-Uwainah	al-ʿUwainah	العوينه
al-Wafi	al-Wāfy	الوافي
al-Washahi	al-Wāšīḥy	الواشحي
al-Wasil	al-Wāṣil	الواصل
Al-Wasit	al-Wāṣit	الواسط

al-Wusta	al-Wstā	الوسطى
Amalah	ʿAmalah	عملا
Arja	ʿArjā	عرجا
as Safāfir	as Ṣafāfir	الصفافير
as Seeb	as Sīb	السيب
A'seelah (Asilah)	Aṣīlah	أصيله
Asimah	ʿAsīmah	عسيمه
Awabi	al-ʿAwāby	العوابي
Awafi	ʿAwāfy	عوافي
Bahla	Bahlā	بھلا
Balad Seet (Sayt)	Balad Sīt	بلد سيت
Bandar al-Jissa	Bandar al-Jaṣah	بندر الجصة
Bandar al-Khayran	Bandar al-Ḥīrān	بندر الخيران
Barka	Barkā	بركاء
Barzaman	Barzamān	برزمان
Bat	Bāt	بات
Bidbid	Bidbid	بدبد
Bidiyah	Bidiyah	بديه
Bilad al-Maaidin (Muaidin, Maaidin)	Bilād al-Muʿaidin	بلاد المعيدن
Bilad Bani Bu 'Ali	Bilād Banī Bw ʿAlī	بلاد بني بو علي
Bilad Bani Bu Hasan	Bilād Banī Bw Ḥasan	بلاد بني بو حسن
Bilad Seet (Sayt)	Bilād Sīt	بلاد سيت
Bimah (Bimmah)	Bimah	بيمه
Bir Bara	Bīr Barā	بير برا
Bir Sayf	Bīr Sayf	بير سيف
Bisya	Bisyā	بسيا
Bithnah	Biṭnah	بثنه
Buwshar (Baushar, Bawshar)	Bwṣar	بوشر
Daba	Dabā	دبا
Dalma	Dalmā	دلما
Darsait	Dārsīt	دارسيت
Dhaid	al-Daid	الذيد
Dhayah	Ḍāyah	ضايه
Diba (Dibba)	Dibā	دبا
Dibab	Ḍabāb	ضباب
Dima wa At Taiyyin	Dimā wa al-Ṭāyīn	دما والطاين
Dubai	Dubay	دبي
Eastern Hajar	al-Ḥajar al-Šarqy	الحجر الشرقي
ed-Dur (ed-Door)	al-Dwr	الدور
Emirates	al-Īmārāt	الإمارات
Fahud	Fuhwd	فهود
Fashgha	Fašgha	فشغه
Firq (Farq)	Farq	فرق
Fujairah	al-Fūjairah	الفجيرة
Ghalilah	Ġalīlah	غليله
Ghanadha	Ġanāḍah	غناضة
Hafit	Ḥafīt	حفيت
Harat al-Nizar	Ḥārat al-Nizār	حارة النزار
Harat al-Yaman	Ḥārat al-Yaman	حارة اليمن
Harat ar-Raha	Ḥārat ar Raḥā	حارة الرحي
Hat	Hāt	هاط
Hili	Hilī	هيلي
Husn Khor	Ḥiṣin Ḥwr	حصن خور
Ibra	Ībrā	إبرا
Ibri	Ībry	عبري
Idhn	Īḍn	اضن

Indian Ocean	al-Muḥīṭ al-Hindi	المحيط الهندي
Izki	Īzky	إزكي
Jebel al-Hammah	Jebel al-Ḥammah	جبل الحمه
Jebel Hafit	Jebel Ḥafīt	جبل حفيت
Jebel Suleman 'Ali	Jebel Sulimān 'Alī	جبل سليمان علي
Jebel Qard (Check??)	Jebel Qard	جبل قرد
Jala'an	J'alān	جعلان
Jarda	al-Jardā	الجرءاء
Jazirat al-Hamra	Jazīrat al-Ḥamrā	جزيرة الحمرا
Jebal Bu Rzuz	Jebel Bw Ruzūz	جبل بو رزوز
Jebel Akhdar	al-Jebel al-Aḥḍar	الجبل الأخضر
Jebel Shams	Jebel Šams	جبل شمس
Julfar	Julfār	جلفار
Kalba	Kalbā	كلبا
Khadra Bani Dafa'a	Ḥaḍrā Banī Dafā'a	خضراء بني دفاع
Kharimat Khor al-Manahil	Ḥuraimat Ḥwr al-Manāhīl	خريمة خور المناهيل
Kharma	Ḥarmā	خرما
Khawr al-Jaramah	Ḥwr al-Jarāmah	خور جرامه
Khor Fakkan	Ḥwr Fakān	خور فكان
Khuwisi (Check??)	Ḥuwaiṣy	خويسي
Kuria Muria	Kwriā Mwriā	كوريا موريا
Kush	Kwš	كوش
Liwa	Līwā	ليوا
Liwa	Liwā	لوى
Lizq (Luzq)	Luzuq	لزق
Madkhal al-'Akaba	Madḥal al-'Aqabah	مدخل العقبة
Mahadhah	Maḥaḍah	محضة
Mahleya	Maḥlyā	محلياء
Manah	Manah	منح
Manal	Manāl	منال
Maqbarat Al-A'imma	Maqbarat al-E'imah	مقبرة الأئمة
Maqbarat Al-Uwaynah	Maqbarat al-'Uwaynah	مقبرة العوينة
Marawah	Marāwah	مراوح
Masirah	Maṣirah	مصيرة
Maysar (Muyasar)	Al-Maysar (al-Muyasar)	الميسر
Mintirib	al-Mintirib	المنترب
Miskin	Miskin	مسكن
Mleiha	Mleiḥah	مليحة
Mowaihat	Muwaiḥāt	مويهاات
Mullaq	Mūlāq	ملاق
Musandam	Musandam	مسندم
Muscat	Masqaṭ	مسقط
Muti	Īmṭy	امطي
Muwaylaha	Muwaylaḥah	مويلحه
Muweilah (Muwaylah)	Muwaylaḥ	مويلح
Nasla	Naṣlah	نصله
Nizwa	Nīzwā	نزوى
Oman	'Ūmān	عمان
Qalahat	Qalahāt	قلهاات
Qarn Bint Sa'ud	Qarn Bint S'ūd	قرن بنت سعود
Qarn Qantarāt Nizwā	Qarn Qanṭarat Nizwā	قرن قنطرة نزوى
Qaryat Sallut	Qaryat Sallūt	قرية سلوت
Qatarah	al-Qaṭārah	القطارة
Qidfa	Qadfa'a	قدفع
Qurayat	Qurayāt	قريات
Rafag	Rafaq	رفق
Ra's al Khabbah	Rās al-Ḥabah	راس الخبه

Ras al-Aysh	Rās al-ʿAiš	راس العيش
Ras al-Hadd	Rās al-Ḥad	راس الحد
Ras al-Hamra	Rās al-Ḥamrā	راس الحمرا
Ras al-Jinz	Rās al-Jinz	راس الجنز
Ras al-Khaimah	Rās al-Ḥaimah	راس الخيمة
Ra's ar Ru'ays (Ruways)	Rās ar Ruways	راس الرويس
Ra's ash Shaqallah	Rās al-Šaqḻah	راس الشقله
Ra's ash Sharik	Rās al-Šārīḥ	راس الشارخ
Ras Lima	Rās Līmā	راس ليما
Ra's Madrakah	Rās Madrakah	راس مدركه
Ras Quamylah	Rās Qūmaylah	راس قميلة
Ra's Sheikh Mas'ud	Rās al-Šaiḥ Masʿawd	راس الشيخ مسعود
Rous al-Jibal	Rūws al-Jibāl	روس الجبال
Rub al-Khali	ar Rubʿa al-Ḥāly	الربع الخالي
Rubkah (Check??)	Rubḥah	ربخه
Rumaiṭha	Rumaiṭah	الرميثة
Rumeilah (Rumaylah)	Rumaylah	رميله
Rustaq	ar Rustāq	الrustaq
Sabkhat Matti	Sabḥat Īmṭy	سبخة امطي
Saham	Šaḥam	صحم
Saiq (Sayq)	Sīq	سيق
Saiwan	Šīwān	صيوان
Salut	Salwt	سلوت
Samad as Shan	Samad al-Šān	سمد الشان
Selme	Selmy	سلمي
Sharjah	al-Šāriqah	الشارقة
Sharm	Šaram	شرم
Shimal	Šimal	شمل
Shir	Šīr	شير
Siba'	Sibā	سيبا
Sinaw	Sināw	سناو
Sir Bani Yas	Šīr Banī Yās	صير بني ياس
Soa'al	Suʿāl	سعال
Sohar	Šuḥār	صحار
Strait of Hormuz	Maḍyq Hurmuz	مضيق هرمز
Sulaymi	al-Sulaymi	السليمي
Suq al-Qadim	al-Sūq al-Qadīm	السوق القديم
Sur	Šūr	صور
Suwaiq	al-Sūwaiq	السويق
Suwayh	as Suwayḥ	السويح
Tarif	Ṭarīf	طريف
Tawi Arja	Ṭawī ʿArjā	طوي العرجا
Tawi Hulays	Ṭawī Ḥulays	طوي حليس
Tawi Said	Ṭawī Sʿīd	طوي سعيد
Tawi Silaim	Ṭawī Sulaim	طوي سليم
Tell Abraaq	Tell Abraaq	تل أبرق
The Arabian Gulf	al-Ḥalīj al-ʿAraby	الخليج العربي
The Arabian Peninsula	Šibah al-Jazīrah al-ʿArabyah	شبة الجزيرة العربية
The Arabian Sea	Baḥar al-ʿArab	بحر العرب
The Gulf of Oman	Ḥalīj al-ʿUmān	خليج عمان
The Oman Peninsula	Šibah al-Jazīrah al-ʿUmānyah	شبة الجزيرة العمانية
Tikha	Ṭīḥah	طيحه
Tiwi	Ṭīwī	طيوي
Ubaid	al-ʿŪbaid	العبيد
Umm al-Qaiwain	Ūm al-Qaiwain	أم القيوين
Umm an-Nar	Ūm an-Nār	أم النار
Umm az Zumul	Ūm az Zumūl	أم الزمول

Wa'ab
 Wadi al Bathā
 Wadi al-'Ain
 Wadi al-Fulayj
 Wadi al-Hawasinah
 Wadi al-Jiri
 Wadi al-Jizi
 Wadi al-Kabir
 Wadi al-Kharma
 Wadi al-Mazari'a
 Wadi al-Qawr
 Wadi al-Rak
 Wadi al-Umayri
 Wadi al-Wushail
 Wadi Andam
 Wadi Bani Awaf
 Wadi Bani Ghafir
 Wadi Bani 'Umr
 Wadi Bunzar
 Wadi Far'a
 Wadi Fizh
 Wadi Garbi
 Wadi Ghul
 Wadi Halfain (Halfayn)
 Wadi Haqil
 Wadi Kalbu
 Wadi Mahram
 Wadi Qa'aid
 Wadi Qant
 Wadi Raki
 Wadi Sahtan
 Wadi Samad
 Wadi Shab
 Wadi Sunaysal
 Wadi Suq
 Wadi Suqt
 Wadi Tayin
 Wadi Wutayya
 Wahiba Sands
 Western Hajar
 Yasat al-Sufla
 Yasat al-Ulia
 Zabi
 Zahir
 Zahra
 Zammah
 Zukayt (Zukait)

Wa'ab
 Wādī al-Baṭḥā
 Wādī al-'Ain
 Wādī Fulayj
 Wādī al-Ḥwāsinah
 Wādī al-Jirrī
 Wādī al-Jizī
 Wādī al-Kabīr
 Wādī al-Ḥarmā
 Wādī al-Mazārī'a
 Wādī al-Qawr
 Wādī al-Rāk
 Wādī al-'Ūmayry
 Wādī al-Wuṣail
 Wādī 'Andām
 Wādī Banī 'Awaf
 Wādī Banī Ġāfir
 Wādī Banī 'Ūmar
 Wādī Bwnzār
 Wādī al-Far'a
 Wādī Fizḥ
 Wādī al-Ġarby
 Wādī Ġūl
 Wādī Ḥalfīn
 Wādī Ḥaqīl
 Wādī Kalbwh
 Wādī Maḥram
 Wādī al-Qu'ad
 Wādī Qant
 Wādī Rākī
 Wādī al-Saḥtan
 Wādī Samad
 Wādī Šāb
 Wādī Sunaysal
 Wādī Swq
 Wādī Suqt
 Wādī al-Ṭāyīn
 Wādī al-Wuṭayah
 Rymāl Wyhaibah
 al-Ḥajar al-Ġarby
 Yāsāt al-Suflā
 Yāsāt al-'Ūliā
 Zābī
 Zāhir
 Zahrā
 Zammah
 Īzkait

وعب
 وادي البطحا
 وادي العين
 وادي الفليج
 وادي الحواسنة
 وادي الجري
 وادي الجزى
 الوادي الكبير
 وادي الخرماء
 وادي المزارع
 وادي القور
 وادي الراك
 وادي العميري
 وادي الوشيل
 وادي عندام
 وادي بني عوف
 وادي بني غافر
 وادي بني عمر
 وادي بونزار
 وادي الفرع
 وادي فزح
 وادي الغربي
 وادي غول
 وادي حلفين
 وادي حقيـل
 وادي كلبوه
 وادي محرم
 وادي القعد
 وادي قنت
 وادي الراكي
 وادي السحتن
 وادي سمد
 وادي شاب
 وادي سنيسل
 وادي سوق
 وادي سقط
 وادي الطايين
 وادي الوطية
 رمال وهيبة
 الحجر الغربي
 ياسات السفلى
 ياسات العليا
 زابي
 زاهر
 زهرا
 زمه
 ازكيت

APPENDIX G:

HAFIT POPULATION ESTIMATION

APPENDIX G: HAFIT POPULATION ESTIMATION

It should be stated that no associated settlements with and or close to cairns have been found, which do not permit developing our understanding about the settlement patterns of this period. It is logical to believe that this large number of cairns should indicate a large, if not dense, population which must have had settlements somewhere. Thus, the question is whether it is possible in the absence of a settlement to make a rough calculation of the possible size of population based on the total number of tombs located by the survey. An attempt has been made in this appendix to calculate the possible population of Hafit based on the total number of recorded tombs, the total number of burials represented by the tombs, a presumed life expectancy of 45 years; and the total number of years in which the tombs were in use. However, I believe that this calculation cannot be precisely carried out due to the lack of data regarding some issues. The current estimation produced a population of between 44 and 176. This seems to be very low but it can give some indication of the problem. It is a problem because we do not know how many tombs have been destroyed so far, there are other areas at Wadi Andam which have not been surveyed yet, and there is the additional problem of dating (see Chapter Three, Section 3.2). There is also a lack of data regarding the total number of burials in the tombs and life expectancies. Therefore, we are not yet in a position to make a realistic calculation of the population on the available data. Nevertheless, this may be in the future.

The literature review shows that the few excavated Hafit cairns at, for example, Jebel Hafit and Buraimi Oasis (Frifelt 1975a; Cleuziou 1976/7); Ibri (Frifelt 1975a & 1975b); and Tawi Silaim (de Cardi Doe, & Roskams 1977; de Cardi, Bell & Starling 1979) do not permit estimation of either the number of individuals buried in these tombs or of their life expectancy. This could be related to the bad state of preservation and considerable disturbance of these tombs over time. Few of these tombs have yielded skeletal remains that might help in defining the number of burials per tomb. Examples include Graves 1317, 1320 and 1314 at Bat that were excavated by the Danish team in 1972/1973. The first grave yielded only one skeleton with the possibility of other remains being skeletal. Grave 1320 yielded a possible three skeletons (Frifelt 1975a: 61, 63; figs.14–16, 20: 68,70,73), while Grave 1314 yielded only two skeletons (Frifelt 1975b: 386–388; fig.9). Furthermore, few cairns excavated by the French Mission at Jebel Hafit in 1976/1977 yielded skeletal remains. Of these,

Cairn 2 yielded the remains of two (an adult and a juvenile) with the possibility of a third one, while Cairn 3 yielded one possible skeleton (Cleuziou 1976/7: 15–16). Thus, it is argued that each cairn represents a ‘family-cairn’ with one to four burials in the same chamber (Frifelt 1975a: 67; 1975b: 386 & 1976c: 57). However, the Joint Hadd Project excavations at Ra’s al-Hadd revealed a different picture of the number of Hafit burials. Among the few excavated cairns at site HD–6, Cairn 1 yielded 29 (Cleuziou 2003: 141), while Cairns 10–4.1 and 10–4.2 at site HD–10 yielded around 22 and Cairn 10–3.2 yielded six individuals (Salvatori 2001: 69–70; fig. 2–5 & 1.1–2.2). Cairns 4 and 5 at site RJ–6 at Ra’s al-Jinz might also present a confirmation of several burials (Cleuziou & Tosi 1990b: 28; fig. 25–26: 29). All these cairns included individuals with different ages and sexes within their burial chamber and they had been used by several generations (Salvatori 2001: 71).

It appears then that it is not easy to make calculations of population. However, it is a matter of assumption. Some elements must be available in order to estimate the population based on tombs (Ubelaker 1999: 140): the total number of tombs within the cemetery; the total number of burials represented by tombs; life expectancy rate; and the total number of years in which the cemetery was in use. In the case of the Hafit cairns, only elements 1 and 4 are available. Therefore, to calculate the population from such data, assumptions are needed for some of the data about, explicitly, elements 2 and 3. As the evidence from Ra’s al-Hadd/Ra’s al-Jinz is, as I am aware, the only area which has a large number of burials, and bearing in mind the possibility of secondary burials as well as it is the only coastal site among the other excavated sites that have yielded Hafit cairns, I would follow the argument made by Frifelt and others and assume that the total number of burials represented by each cairn is between one and four individuals. Additionally, I would assume that the average life expectancy age is 45 years.

To calculate the population the following formula will be used (*ibid*: 140):

$$P = \frac{1000N}{MT}$$

- 1000= Total number of individuals per thousand
- P: is the size of population: not known?
- N: is the total number of burials represented by the tombs (1–4 per tomb):
1,987 cairns: 1,987 x 1 = 1,987; or 1,987 x 4 = 7,948; and 205 Beehives: 205 x 1 = 205 or 205 x 4 = 820

- M: is the crude mortality rate, which will be replaced by life expectancy assuming that it is 45 years.
- T: is the number of years the tombs were in use (ca. 3,500/3,400–2,500 BC= 1,000 years)

Based on the total number of burials represented by the tombs, two calculations can be made by considering the lower number that represents one burial and the higher number that represents four burials. This would permit having a lower and a higher estimation in which the population estimation will be somewhere in between. The calculations are as follow:

1- One burial per tomb:

Cairns:

$$P = 1,000 \times 1,987/45 \times 1000$$

$$P = 1,987,000/45,000$$

$$P = 44.15$$

Beehives:

$$P = 1,000 \times 205/45 \times 1000$$

$$P = 205,000/45,000$$

$$P = 4.55$$

2- Four burials per tomb:

Cairns:

$$P = 1,000 \times 7,948/45 \times 1000$$

$$P = 7,948,000/45,000$$

$$P = 176.62$$

Beehives:

$$P = 1,000 \times 820/45 \times 1000$$

$$P = 820,000/45,000$$

$$P = 18.22$$

Total No. burials	Cairns	Beehives	Both Types of Tombs
1	44.15	4.55	48.7
4	176.62	18.22	194.84

Table G. 1 shows the average estimation of population during the Hafit period based on both the total number of cairns and Beehives recovered during the Wadi Andam Survey

The calculations show that the population estimation from the total number of cairns is between 44 and 176 and from the Beehives is between 4 and 18 people based on a life expectancy of 45 years. When combining both types of tomb, the total estimation of population during the Hafit period varies between 49 and 195 people.

This population seems to be quite small compared, for example, to the estimated population of the Wadi Andam at the beginning of the twentieth century. Lorimer (1908: 77–79) indicated that the total number of Wadi Andam inhabitants was about 6,000 souls. He also indicated that the total number in the Buraimi Oasis, where the Hafit tombs were located for the first time, was 5,500 individuals at that time (*ibid*: 260–261). These numbers show a larger population compared to the above calculated figures. This raises the question of the possible reasons behind the absence of settlements during the Hafit period.

APPENDIX H:
OTHER FINDS DESCRIPTION

APPENDIX H: OTHER FINDS DESCRIPTION

The aim of this appendix is to present the other archaeological finds (e.g. metals, shells, softstone, beads, etc.) rather than pottery (see Appendix C) collected during the survey from different sites. It will provide details about the collected find such as its number (e.g. W.D.001), general area of discovery (e.g. al-Fulayj), site number where it was collected from (e.g. CS.1.2.1), possible dating and a description of its characteristics.

Object No	Area	Site	Period	Description
W.D.001	al-Fulayj	CS.1.2.1	Possible 5th millennium BC Arabian Bifacial Tradition (ABT)	Possible unfinished tool made of reddish flint as it appears from the patina; Plate 2
W.D.002	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Stone pierced grey rounded bead; Plate 96
W.D.003	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Stone pierced grey rounded bead; Plate 96
W.D.004	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Pierced white-brown stone bead; Plate 96
W.D.005	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Red carnelian bead; 2.5 cm long and 4 mm diameter; Plate 96
W.D.006	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Stone pierced black rounded bead; Plate 96
W.D.007	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Pierced stone white rounded bead; Plate 96
W.D.008	al-Qaryatain	CS.4.13, Tomb 8	Early Iron Age	Stone pierced black rounded bead; Plate 96
W.D.009	Khadra Bani Dafa'a	CS.2.69.2	?	Flint worked piece
W.D.010	Khadra Bani Dafa'a	CS.2.69.2	?	Flint worked piece
W.D.011	al-Khashbah	CS.5.10, Tomb 27	Early Iron Age	Red-Orange cylindrical stone bead; 4 mm diameter and 1.4 cm long; Plate 84
W.D.012	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Pierced white rounded stone bead; 9 mm diameter; Plate 106
W.D.013	al-Fulayj	CS.1.4, Tomb 1	?	Pierced red cylindrical bead; 1.1 cm long and 5 mm diameter; Plate 84
W.D.014	Khadra Bani Dafa'a	CS.2.67.10	Early Iron Age	Pierced white disc bead; 1 cm diameter; the hole 3 mm diameter; Plate 106
W.D.015	Siyudian	CS.2.4	Wadi Suq	Pierced green carnelian bead; 1.2 cm long and 3 mm to 5 mm diameter; Plate 84
W.D.016	al-Ghoryeen	CS.2.43.2	?	Shell fragment
W.D.017	al-Khashbah	CS.5.10, Tomb 2	Early Iron Age	Pierced white rounded stone bead, ca. 6 mm diameter; 3 mm hole diameter; Plate 106
W.D.018	al-Khashbah	CS.5.10, Tomb 2	?	Green shiny stone
W.D.019	al-Khashbah	CS.5.4	?	Small pierced disc/rounded stone bead; 4 mm diameter
W.D.020	al-Khashbah	CS.5.10, Tomb 4	?	Green shiny stone
W.D.021	al-Qaryatain	CS.4.13, Tomb 9	Early Iron Age	Red pierced carnelian rounded bead; 6 mm diameter; Plate 84
W.D.022	al-Qaryatain	CS.4.13, Tomb 9	Early Iron Age	Complete shell; Plate 97
W.D.023	Khadra Bani Dafa'a	CS.2.67.17	Early Iron Age	Pierced white disc/rounded shell bead; 1 cm diameter; Plate 106
W.D.024	Khadra Bani Dafa'a	CS.2.67.17	Early Iron Age	Fragment of shell
W.D.025	Khadra Bani	CS.2.67.17	Early Iron Age	Complete shell with green traces from

	Dafa'a			inside; Plate 97
W.D.026	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Pierced red rounded stone bead; 3 mm diameter; Plate 110
W.D.027	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Pierced white rounded stone bead; 3 mm to 1 cm diameter; Plate 110
W.D.028	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Pierced white rounded stone bead; 3 mm to 1 cm diameter; Plate 110
W.D.029	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Pierced white rounded stone bead; 3 mm to 1 cm diameter; Plate 110
W.D.030	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Pierced white rounded stone bead; 3 mm to 1 cm diameter; Plate 110
W.D.031	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Pierced white rounded stone bead; 3 mm to 1 cm diameter; Plate 110
W.D.032	Mahleya	CS.2.51.8.6	?	Fragment of glass bracelet of green, light green, yellow & brown colour
W.D.033	al-Qaryatain	CS.4.1.5	Iron Age?	Fragment of softstone vessel's lid of possible rectangular or square vessel; gray
W.D.034	Mahleya	CS.2.51.1	?	Grinding stone ; Plate 346
W.D.035	al-Ghoryeen	CS.2.63	?	Fragment of shell; Plate 371
W.D.036	al-Ghoryeen	CS.2.63	?	Complete shell; Plate 347 & 371
W.D.037	al-Ghoryeen	CS.2.63	?	Complete shell ; Plate 371
W.D.038	al-Ghoryeen	CS.2.63	?	Fragment of shell ; Plate 371
W.D.039	al-Ghoryeen	CS.2.63	?	Complete shell ; Plate 371
W.D.040	al-Ghoryeen	CS.2.63	?	Complete shell ; Plate 371
W.D.041	al-Ghoryeen	CS.2.63	?	Complete shell ; Plate 371
W.D.042	al-Ghoryeen	CS.2.63	?	Complete shell ; Plate 371
W.D.043	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.044	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.045	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.046	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.047	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.048	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.049	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.050	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.051	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.052	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.053	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.054	al-Ghoryeen	CS.2.63	?	Fragment of shell
W.D.055	al-Ghoryeen	CS.2.63	?	Complete shell
W.D.056	al-Khuraish	CS.3.8.1	?	Complete shell; Plate 266
W.D.057	al-Khuraish	CS.3.8.1	?	Fragment of shell; Plate 266
W.D.058	Brazaman	CS.7.1.2	?	Fragment of shell
W.D.059	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Complete Shell; Plate 112
W.D.060	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of shell; Plate 112
W.D.061	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of shell; Plate 112
W.D.062	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of shell
W.D.063	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of shell
W.D.064	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of shell
W.D.065	Mahleya	CS.2.57	?	Fragment of shell
W.D.066	al-Ghoryeen	CS.2.60	?	Fragment of shell
W.D.067	Khadra Bani Dafa'a	CS.2.67.14	Early Iron Age	Fragment of shell; Plate 115
W.D.068	Khadra Bani	CS.2.67.14	Early Iron Age	Complete shell; Plate 115; Plate 347

	Dafa'a			
W.D.069	Khadra Bani Dafa'a	CS.2.67.14	Early Iron Age	Fragment of shell
W.D.070	Khadra Bani Dafa'a	CS.2.67.14	Early Iron Age	Fragment of shell
W.D.071	al-Khashbah	CS.5.14, Tomb 8	?	Fragment of shell
W.D.072	al-Khashbah	CS.5.14, Tomb 8	?	Complete shell; Plate 347
W.D.073	al-Khashbah	CS.5.14, Tomb 8	?	Fragment of shell
W.D.074	al-Khashbah	CS.5.14, Tomb 8	?	Fragment of shell
W.D.075	al-Khashbah	CS.5.14, Tomb 8	?	Fragment of shell
W.D.076	al-Khashbah	CS.5.13, Tomb 3	Early Iron Age	Fragment of shell
W.D.077	al-Khashbah	CS.5.13, Tomb 3	Early Iron Age	Fragment of shell
W.D.078	Mahleya	CS.2.55.1	?	Fragment of shell
W.D.079	Mahleya	CS.2.55.1	?	Fragment of shell
W.D.080	Mahleya	CS.2.55.1	?	Fragment of shell
W.D.081	Mahleya	CS.2.55.1	?	Fragment of shell
W.D.082	Khadra Bani Dafa'a	CS.2.67.24	Early Iron Age	Fragment of shell
W.D.083	Khadra Bani Dafa'a	CS.2.67.24	Early Iron Age	Fragment of shell
W.D.084	Khadra Bani Dafa'a	CS.2.67.24	Early Iron Age	Fragment of shell
W.D.085	al-Ghoryeen	CS.2.52.3	?	Fragment of shell; Plate 352
W.D.086	al-Ghoryeen	CS.2.52.3	?	Fragment of shell; Plate 352
W.D.087	al-Ghoryeen	CS.2.52.3	?	Fragment of shell; Plate 352
W.D.088	al-Ghoryeen	CS.2.52.3	?	Fragment of shell; Plate 352
W.D.089	Mahleya	CS.2.51.7.2	?	Complete shell; Plate 347
W.D.090	Mahleya	CS.2.51.7.2	?	Fragment of shell
W.D.091	Mahleya	CS.2.51.7.2	?	Fragment of shell
W.D.092	Khadra Bani Dafa'a	CS.2.68	?	Large complete shell
W.D.093	al-Khashbah	CS.5.1.4	?	Large complete shell
W.D.094	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Fragment of shell; Plate 111
W.D.095	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Fragment of shell; Plate 111
W.D.096	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Fragment of shell; Plate 111
W.D.097	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Complete shell; Plates 111 & 347
W.D.098	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Fragment of shell; Plate 111
W.D.099	al-Khashbah	CS.5.13, Tomb 2	Early Iron Age	Fragment of shell; Plate 111
W.D.100	al-Ghoryeen	CS.2.52.6	?	Fragment of shell
W.D.101	Mahleya	CS.2.51.8.7	?	Complete shell; Plate 351
W.D.102	Mahleya	CS.2.51.8.7	?	Fragment of shell
W.D.103	Mahleya	CS.2.51.8.7	?	Fragment of shell
W.D.104	Mahleya	CS.2.51.8.7	?	Fragment of shell
W.D.105	Mahleya	CS.2.51.8.7	?	Fragment of shell
W.D.106	al-Ghoryeen	CS.2.52.4	Umm an-Nar	Fragment of softstone vessel; possible part of rim with incised double circle and dot row between two horizontal lines; 5 mm rim thick Parallels can be found in the Umm an-Nar tombs at Bat (Frifelt 1975b: fig.28e: 418); Hili Tomb B (al-Tikriti 1981: Pls. 138-139); Hili North, Tomb A (Cleuziou & Vogt 1983: fig.10, Nos.7-9: 52 & 1985: fig. No.3:

				8); Hili Tomb N (Hadu 1989: Pl.13: 66) and Ajman Tombs A and B (al-Tikriti 1989b: Pl.45, Nos. C-G); Plate 64
W.D.107	al-Qaryatain	CS.4.3	Early Iron Age	Fragment of rectangular or square softstone vessel with three incised horizontal lines just under the straight rim of c.4 mm thickness; gray to greenish ; Plate 93
W.D.108	al-Qaryatain	CS.4.3	Early Iron Age	Complete shell; Plate 94
W.D.109	Khadra Bani Dafa'a	CS.2.67.26	Early Iron Age	Small bronze/copper leaf-shaped arrowhead with mid-rib; 3.3 cm long; handle 1 cm long & 3 mm wide Rumeilah (Boucharlat & Lombard 1985: Pl.62, Nos. 1-7)
W.D.110	Khadra Bani Dafa'a	CS.2.67.26	Early Iron Age	Fragment of shell
W.D.111	Khadra Bani Dafa'a	CS.2.67.26	Early Iron Age	Fragment of shell
W.D.112	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of softstone vessel; of the same vessel with (W.D.113 to W.D.115); with rounded/straight rim & two incised horizontal lines just under the rim & tangeld-opposed traingulas? and incised dots; 4 mm rim thickness; very smallvessel (cup?) with open-rounded mouth. Rumeilah Period II (Boucharlat & Lombard 1985: Pl.60, No.4) and the Honeycomb cemetery at Bawshar Area (Costa et al 1999: cf. figs. 17-19: pp: 63-65
W.D.113	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of softstone vessel; of the same vessel with (W.D.113 to W.D.115); with rounded/straight rim & two incised horizontal lines just under the rim & tangeld-opposed traingulas? and incised dots; 4 mm rim thickness; very smallvessel (cup?) with open-rounded mouth. Rumeilah Period II (Boucharlat & Lombard 1985: Pl.60, No.4) and the Honeycomb cemetery at Bawshar Area (Costa et al 1999: cf. figs. 17-19: pp: 63-65
W.D.114	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of softstone vessel; of the same vessel with (W.D.113 to W.D.115); with rounded/straight rim & two incised horizontal lines just under the rim & tangeld-opposed traingulas? and incised dots; 4 mm rim thickness; very smallvessel (cup?) with open-rounded mouth. Rumeilah Period II (Boucharlat & Lombard 1985: Pl.60, No.4) and the Honeycomb cemetery at Bawshar Area (Costa et al 1999: cf. figs. 17-19: pp: 63-65
W.D.115	al-Khashbah	CS.5.13, Tomb 4	Early Iron Age	Fragment of softstone vessel; of the same vessel with (W.D.113 to W.D.115); with rounded/straight rim & two incised horizontal lines just under the rim & tangeld-opposed traingulas? and incised dots; 4 mm rim thickness; very smallvessel (cup?) with open-rounded mouth. Rumeilah Period II (Boucharlat & Lombard

				1985: Pl.60, No.4) and the Honeycomb cemetery at Bawshar Area (Costa et al 1999: cf. figs. 17-19: pp: 63-65
W.D.116	Khadra Bani Dafa'a	CS.2.69.1, Tomb 3	Early Iron Age	Long bronze/copper leaf-shaped arrowhead with mid-rib; 5.8 cm long; handle 1 cm long & 3 mm wide Rumeilah (Boucharlat & Lombard 1985: Pl.62, Nos. 1-7)
W.D.117	Khadra Bani Dafa'a	CS.2.69.1, Tomb 3	Early Iron Age	Complete shell, Plate 70
W.D.118	Khadra Bani Dafa'a	CS.2.69.1.3	?	A piece of flint
W.D.119	al-Qaryatain	CS.4.13, Tomb 1	Early Iron Age	Pierced gray stone with 2.3 cm diameter & 8 mm hole diameter ; Plate 98
W.D.120	Mahleya	CS.2.51.8.4	?	Fragment of green glass
W.D.121	Mahleya	CS.2.51.8.4	?	Fragment of green glass
W.D.122	Mahleya	CS.2.51.8.4	?	Fragment of green glass
W.D.123	Siyudian	CS.2.4	Wadi Suq	Pierced gray stone spindle-whorl of domed/Beehive shape & incised decoration of horizontal and vertical lines as well as circle with horizontal and vertical lines; 2 cm diameter base & 7 mm top-hole diameter; Plate 83
W.D.124	Siyudian	CS.2.4	Wadi Suq	Fragment of softstone vessel with projected/relieved band (3 mm wide) & incised decoration of horizontal lines ; Plate 83
W.D.125	Siyudian	CS.2.4	Wadi Suq	Fragment of shell; Plate 86
W.D.126	Siyudian	CS.2.4	Wadi Suq	Fragment of shell; Plate 86
W.D.127	Siyudian	CS.2.4	Wadi Suq	Fragment of shell; Plate 86
W.D.128	Siyudian	CS.2.4	Wadi Suq	A piece of copper sheet
W.D.129	Khadra Bani Dafa'a	CS.2.69.1, Tomb 4	Possible 5th millennium BC Arabian Bifacial Tradition (ABT)	Small flint arrowhead; Plate 3
W.D.130	al-Khashbah	CS.5.10, Tomb 2	Early Iron Age	Iron/copper? of 3.2 cm diameter; Plate 107
W.D.131	Mahleya	CS.2.51.8.6	?	Fragment of glass bracelet of green, light green, yellow & brown colour
W.D.132	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.133	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.134	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.135	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.136	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.137	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.138	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell; Plate 118
W.D.139	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell
W.D.140	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell

W.D.141	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of shell
W.D.142	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of softstone vessel with rounded mouth & bear incised decoration of wavy, spiral, horizontal lines and hatching as well as everted triangles and circles with dot design Rumeilah Period II (Boucharlat & Lombard 1985: Pl.60, No.4) ; Plate 117
W.D.143	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Fragment of softstone of possible square or rectangular vessel bear incised decoration of wavy, spiral, horizontal lines and hatching as well as everted triangles and circles with dot design Rumeilah Period II (Boucharlat & Lombard 1985: Pl.60, No.4) ; Plate 117
W.D.144	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Rounded pierced gray stone bead; 1 cm diameter.
W.D.145	Khadra Bani Dafa'a	CS.2.67.9	Early Iron Age	Chlorite bowl consists of semi-rectangular spout of around 1.9 cm wide and 4.3 cm long. The whole bowl mouth diameter is around 13.5 cm and the base diameter is 7 cm while the bowl's depth is around 5.4 cm. It includes incised decoration of horizontal lines around the rim and two above the base. Wadi al-Qawr (Magee, Per.Com) ; Plate 6 & 116
W.D.146	Siyudian	CS.2.4	Wadi Suq	A badly eroded pin; Plate 85
W.D.0147	Siyudian	CS.2.4	Wadi Suq	Pierced red carnelian bead
W.D.0148	Siyudian	CS.2.4	Wadi Suq	Pierced red carnelian bead

APPENDIX I:

CHI-SQUARED TEST

APPENDIX I: CHI-SQUARED TEST

This appendix includes an attempt to test some of the quantitative differences which have appeared from the data analysis within the thesis, particularly those in Chapter Four, Section Two. This test will use the simple Chi-squared test in order to show that the differences in sherds numbers between different periods are indeed statistically significant and not simply chance occurrences of numbers. In other words, the main question is whether or not the distribution of sherds in relation to site/village could be a matter of chance because if, for example, all sites/villages were evenly occupied then it would be logical to presume that we ought to come across more or less the same density of sherds in each site/village. This represents the "theoretically-derived null hypothesis for calculating expected frequencies" (cf. Shennan 1988: 65–76).

The calculation of the chi-squared test for these tables is based on the difference between the observed (here are the total number of sherds from each site/village and period) and expected values for each category. This can be calculated by multiplying the number of categories which is the number of cells within the table (in Table I: 1, for example, there are six site/village categories multiplied by nine period categories, so the number of cells, as it can be seen from the table is $6 \times 9 = 54$). The expected values are generated by the presumed "null hypothesis". Thus, if there are altogether (here the total number of sherds from each site) and (the total number of sherds for each period), then we would expect: the total number of sherds from each site multiplied by the total number of sherds from each period divided by the total number of sherds from all sites. For example in Table I: 1:

$1,119 \text{ [CS.1]} \times 1,329 \text{ [U.Nar]} \div 15,419 \text{ (all sherds)} = 96.44925092$ [the expected number of Umm an-Nar sherds within CS.1]). The same can be done with all cells within the table. After extracting the expected numbers of sherds, the following formula is applied:

$$X^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

X^2 = the symbol representing chi-squared;

K = the number of categories;

O_i = the observed number of cases in category i ; and

E_i = the expected number of cases in category i .

This formula is applied in the tables presented in this Appendix using Microsoft Excel 2003. As can be seen from all the tested tables below the distribution of sherds between sites and periods across the categories is the same ($X^2 = 0.00$ [null]). This confirms that the differences in sherd numbers between different periods are indeed statistically significant and not simply chance occurrences of the numbers.

Actual no. of Sherds							
Period	CS.1	CS.3	CS.4	CS.5	CS.7	CS.9	Total/Period
U.Nar	30	27	2	1,155	12	103	1,329
E.I.A	10	6	131	143	0	20	310
L.I.A/Samad	50	74	89	65	17	263	558
Islamic	5	85	28	23	5	100	246
M.Islamic	264	729	581	112	37	756	2,479
M.Islamic-L.Islamic	0	0	0	0	46	329	375
L.Islamic	479	1,546.00	979.00	880.00	716	2,874.00	7,474
L.Islamic-Recent	220	293	818	215	172	437	2,155
Recent	61	46	183	82	74	47	493
Total/village	1,119	2,806	2,811	2,675	1,079	4,929	15,419
Expected no. of Sherds							
Period	CS.1	CS.3	CS.4	CS.5	CS.7	CS.9	Total/Period
U.Nar	96.44925092	241.8558	242.2867	231	93.00156	424.8421	1329
E.I.A	22.50	56.41	56.52	53.78	21.69	99.10	310.00
L.I.A/Samad	40.49562228	101.5467	101.7276	96.80589	39.04806	178.3762	558
Islamic	17.85290875	44.76788	44.84766	42.67786	17.21474	78.63895	246
M.Islamic	179.9079707	451.1365	451.9404	430.0749	173.4769	792.4633	2479
M.Islamic-L.Islamic	27.21479992	68.24373	68.36533	65.05772	26.24197	119.8765	375
L.Islamic	542.4091056	1,360.14	1,362.57	1,296.64	523.02	2,389.22	7474
L.Islamic-Recent	156.3943836	392.1739	392.8728	373.865	150.8039	688.89	2155
Recent	35.7783903	89.71775	89.87762	85.52922	34.49945	157.5976	493
Total/village	1119	2806	2811	2,675	1079	4929	15419
X^2							0.00

Table I: 1 shows all the sherd counts by period from all the six surveyed villages, including both PCAs and OVAs

Actual no. of Sherds							
Period	CS.1	CS.3	CS.4	CS.5	CS.7	CS.9	Total/Period
U.Nar	28	15	2	244	0	3	292
L.I.A/Samad	28	0	7	1	5	141	182
Islamic	4	37	27	23	5	57	153
M.Islamic	240	445	473	100	37	327	1,622
M.Islamic-L.Islamic	0	0	0	0	46	174	220
L.Islamic	448	853	847	597	710	1,796	5,251
L.Islamic-Recent	150	151	696	174	112	257	1,540
Recent	57	13	177	71	53	18	389
Total/village	955	1,514	2,229	1,210	968	2,773	9,649
Expected no. of Sherds							
Period	CS.1	CS.3	CS.4	CS.5	CS.7	CS.9	Total/Period
U.Nar	28.90040419	45.81698	67.45445	36.61727	29.29381	83.91709	292
L.I.A/Samad	18.01326562	28.55716	42.04353	22.82309	18.25847	52.30449	182
Islamic	15.14302	24.00684	35.34428	19.18644	15.34916	43.97026	153
M.Islamic	160.5358068	254.5039	374.6956	203.4014	162.7211	466.1422	1622
M.Islamic-L.Islamic	21.77427713	34.51964	50.82185	27.58835	22.07068	63.2252	220
L.Islamic	519.7124054	823.921	1213.025	658.4838	526.787	1,509	5251
L.Islamic-Recent	152.4199399	241.6375	355.7529	193.1185	154.4948	442.5764	1540
Recent	38.50088092	61.037	89.86227	48.78122	39.02498	111.7937	389
Total/village	955	1,514	2,229	1,210	968	2,773	9,649
X ²							0.00

Table I: 2 shows the sherd counts by period from only the PCAs

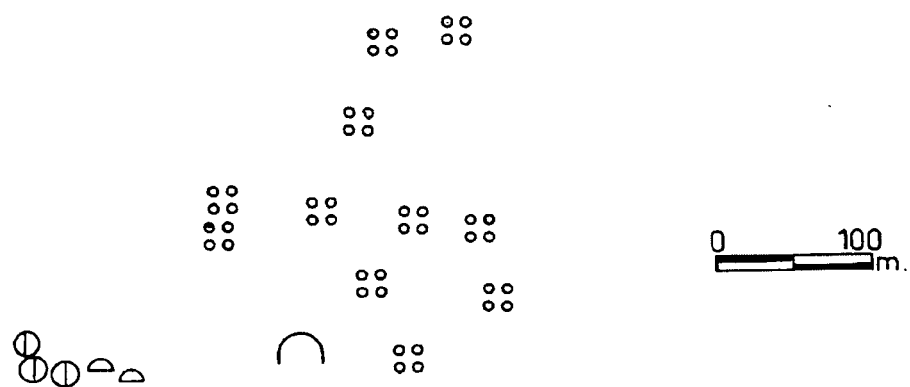
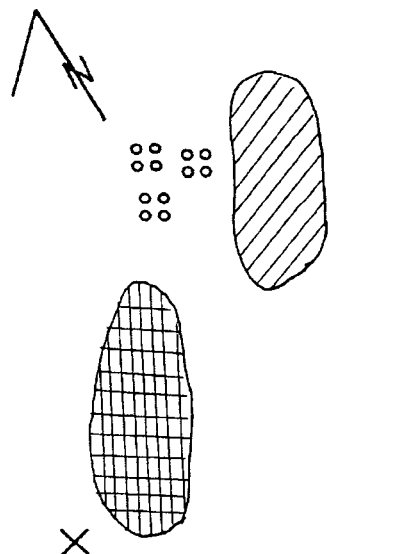
Actual no. of Sherds							
Period	CS.1	CS.3	CS.4	CS.5	CS.7	CS.9	Total/Period
U.Nar	2	12	0	911	12	100	1,037
E.I.A	0	4	131	143	0	0	278
L.I.A/Samad	22	74	82	64	12	122	376
Islamic	1	48	1	0	0	43	93
M.Islamic	24	284	108	12	0	429	857
M.Islamic-L.Islamic	0	0	0	0	0	155	155
L.Islamic	31	693	132	283	6	1,078	2,223
L.Islamic-Recent	70	142	122	41	60	180	615
Recent	4	33	6	11	21	29	104
Total/Village	154	1,290	582	1,465	111	2,136	5,738
Expected no. of Sherds							
Period	CS.1	CS.3	CS.4	CS.5	CS.7	CS.9	Total/Period
U.Nar	27.83164866	233.1352	105.1819	264.7621	20.06047	386.0286	1,037
E.I.A	7.461136284	62.49913	28.19728	70.97769	5.377832	103.4869	278
L.I.A/Samad	10.09132102	84.5312	38.13733	95.99861	7.273614	139.9679	376
Islamic	2.495991635	20.90798	9.432903	23.74434	1.799059	34.61973	93
M.Islamic	23.00069711	192.6682	86.92471	218.8053	16.57842	319.0227	857
M.Islamic-L.Islamic	4.159986058	34.84664	15.72151	39.57389	2.998432	57.69955	155
L.Islamic	59.66225166	499.7682	225.4768	567.5662	43.00331	828	2,223
L.Islamic-Recent	16.50575113	138.2625	62.37888	157.019	11.897	228.9369	615
Recent	2.791216452	23.38097	10.54862	26.55281	2.011851	38.71453	104
Total/Village	154	1,290	582	1,465	111	2,136	5,738
X ²							0.00

Table I: 3 Shows the sherd count by period from only OVAs

FIGURES

Al-Fulayj CS.1.2 & CS.1.3

- ⊙ Hafit Cairn
- ⌒ Beehive Tomb
- ▨ Unidentified Structure
- ⊙ Piled Stones
- ⊙ Stone Scatters
- × Pre-Islamic Tomb?
- ⌒ Horseshoe Structure



0 100 m.

Figure 50 Sketch plan of sites CS.1.2 and CS.1.3 in which they yielded a group of Hafit and Beehive tombs

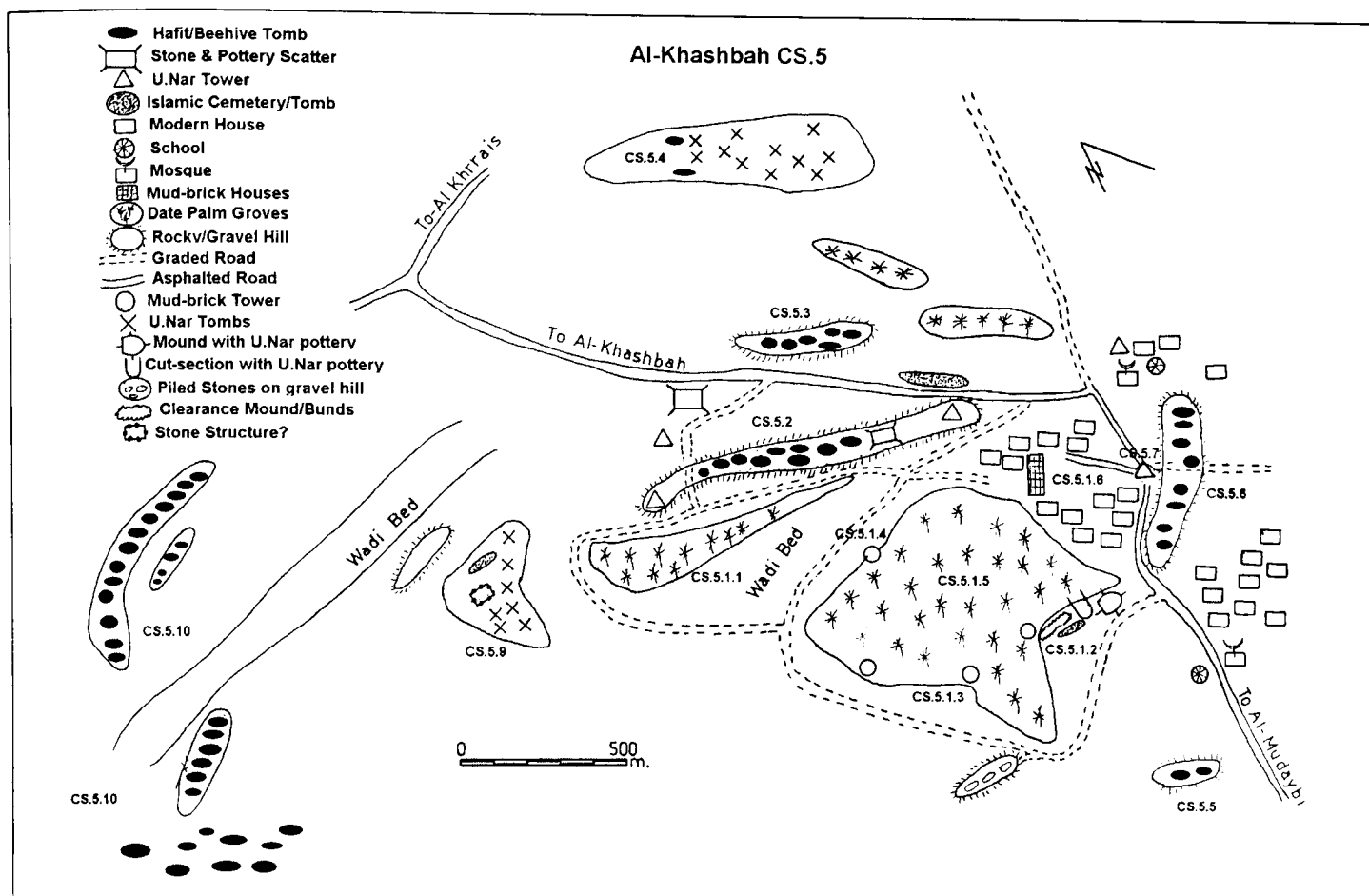


Figure 51 Sketch plan for al-Khashbah village (CS.5) and its sites

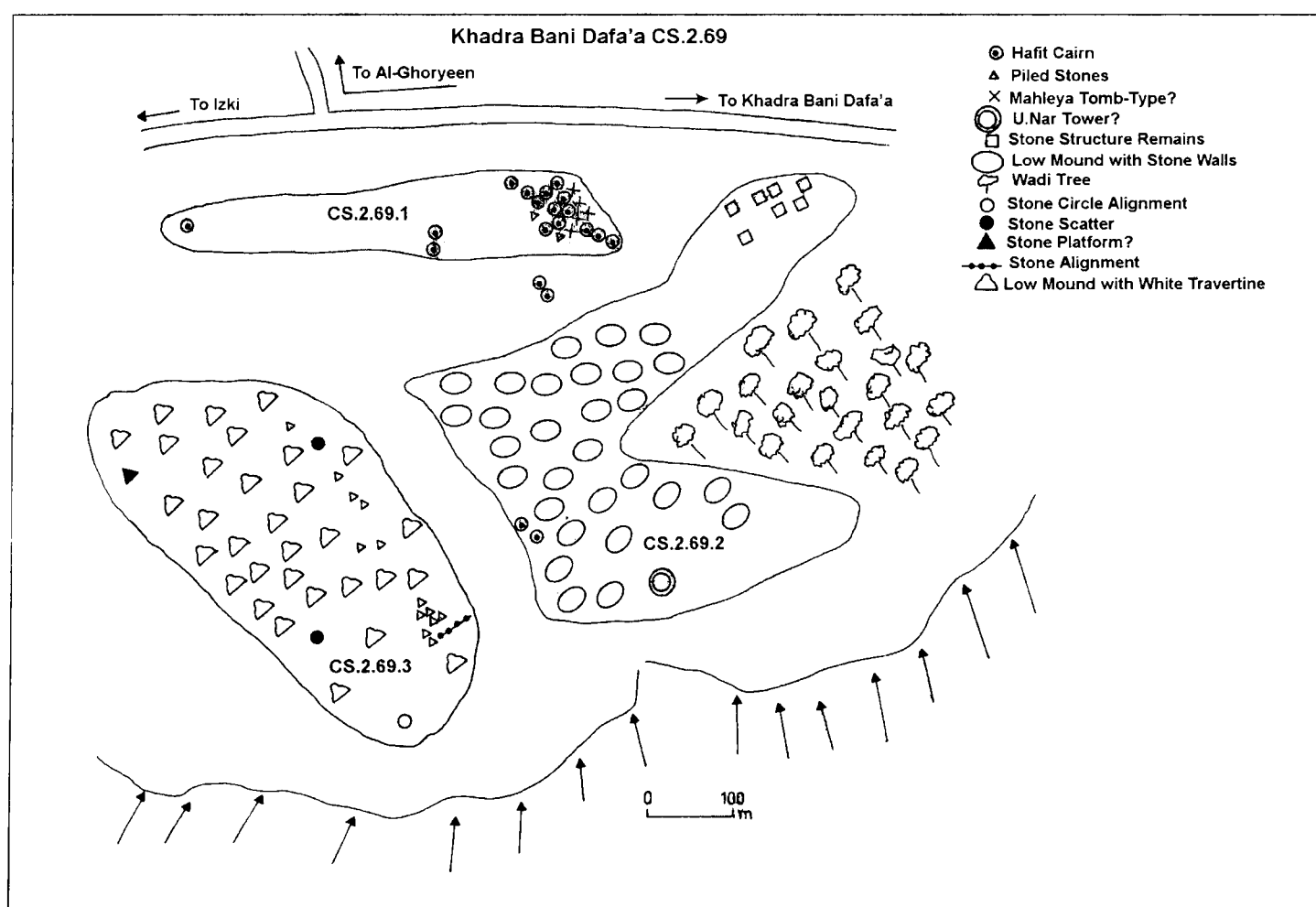


Figure 52 Sketch plan for Site CS.2.69 and its archaeological features

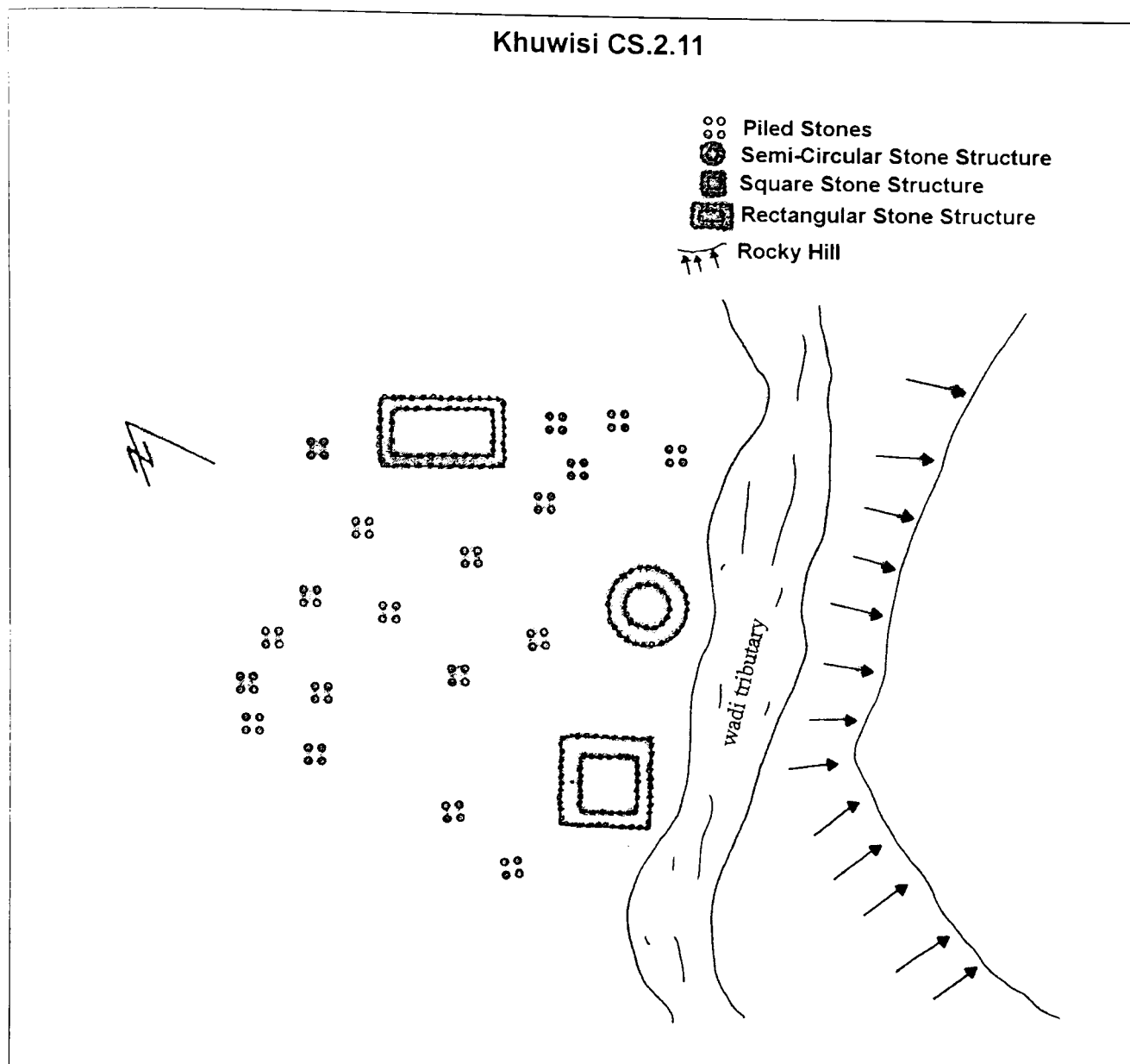


Figure 54 Sketch plan for Site Khuwisi CS.2.11 and its archaeological features

Mahleya CS.2.56, CS.2.57 & CS.2.58

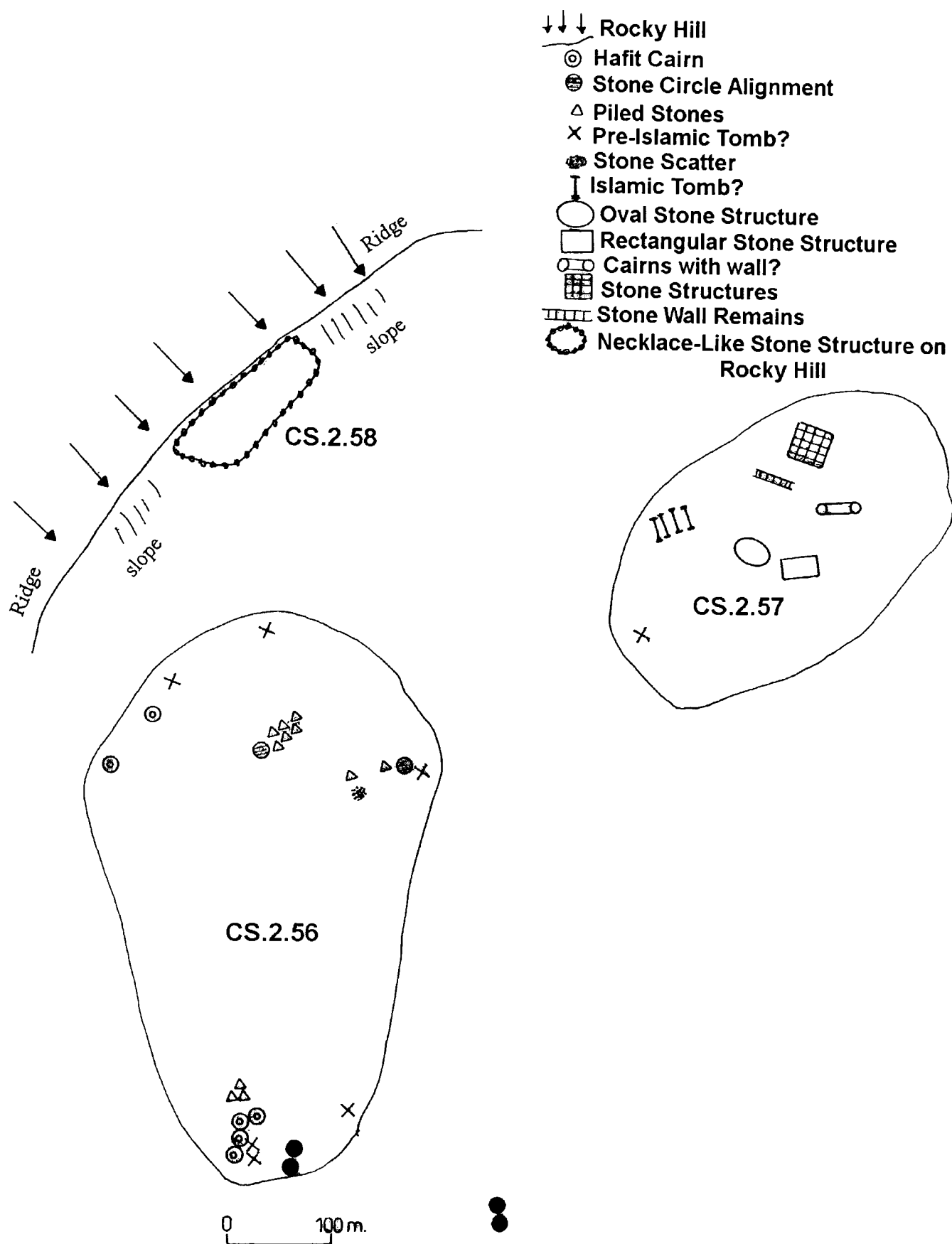


Figure 55 Sketch plan for Sites CS.2.56, CS.2.57 & CS.2.58 and their archaeological features

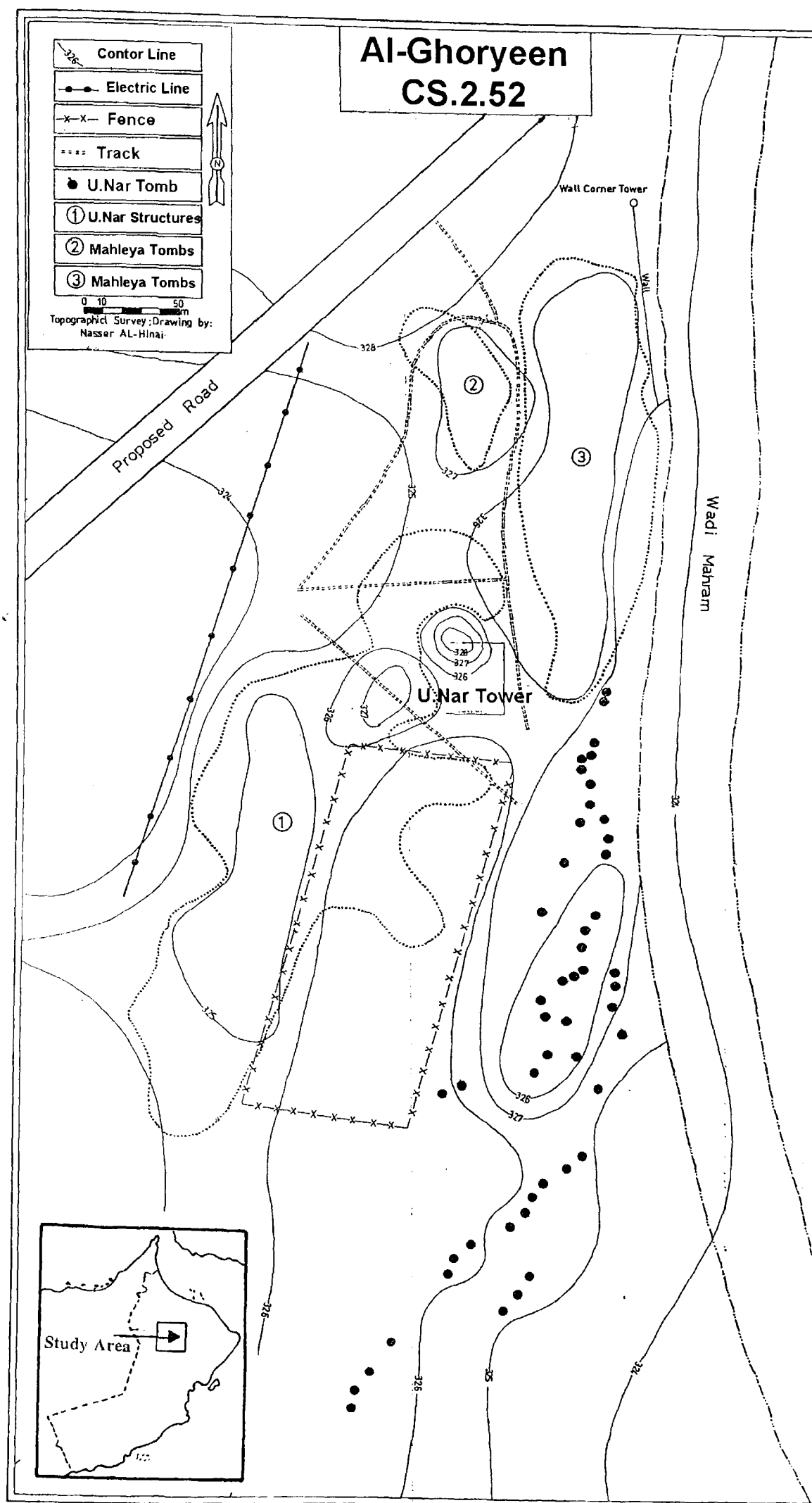
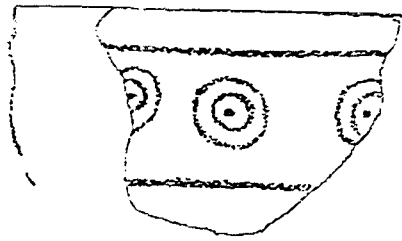
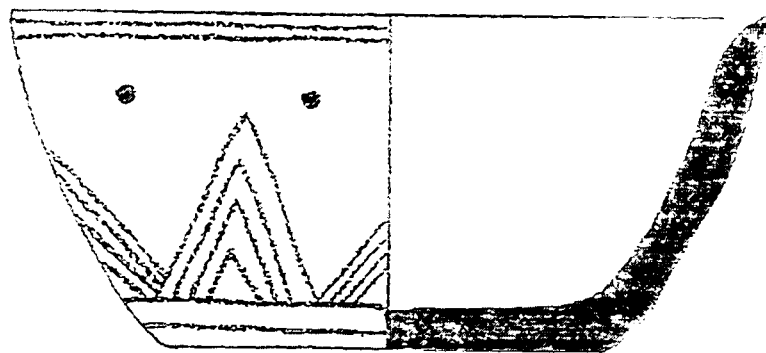


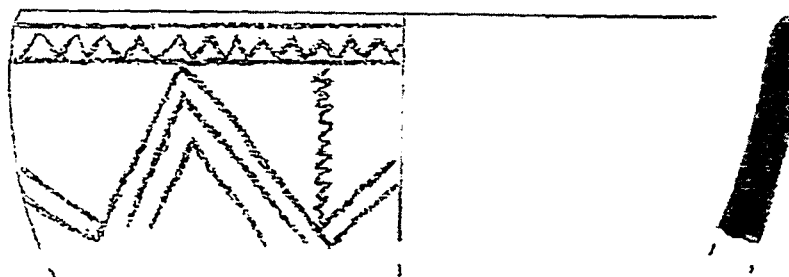
Figure 56 Topographic plan of site CS.2.52 and its archaeological remains



W.D.106
CS.2.52.4



W.D.112 to W.D.115
CS.5.13, Tomb 4



W.D.142
CS.2.67.9

Figure 57 Fragments of chlorite bowls from different sites

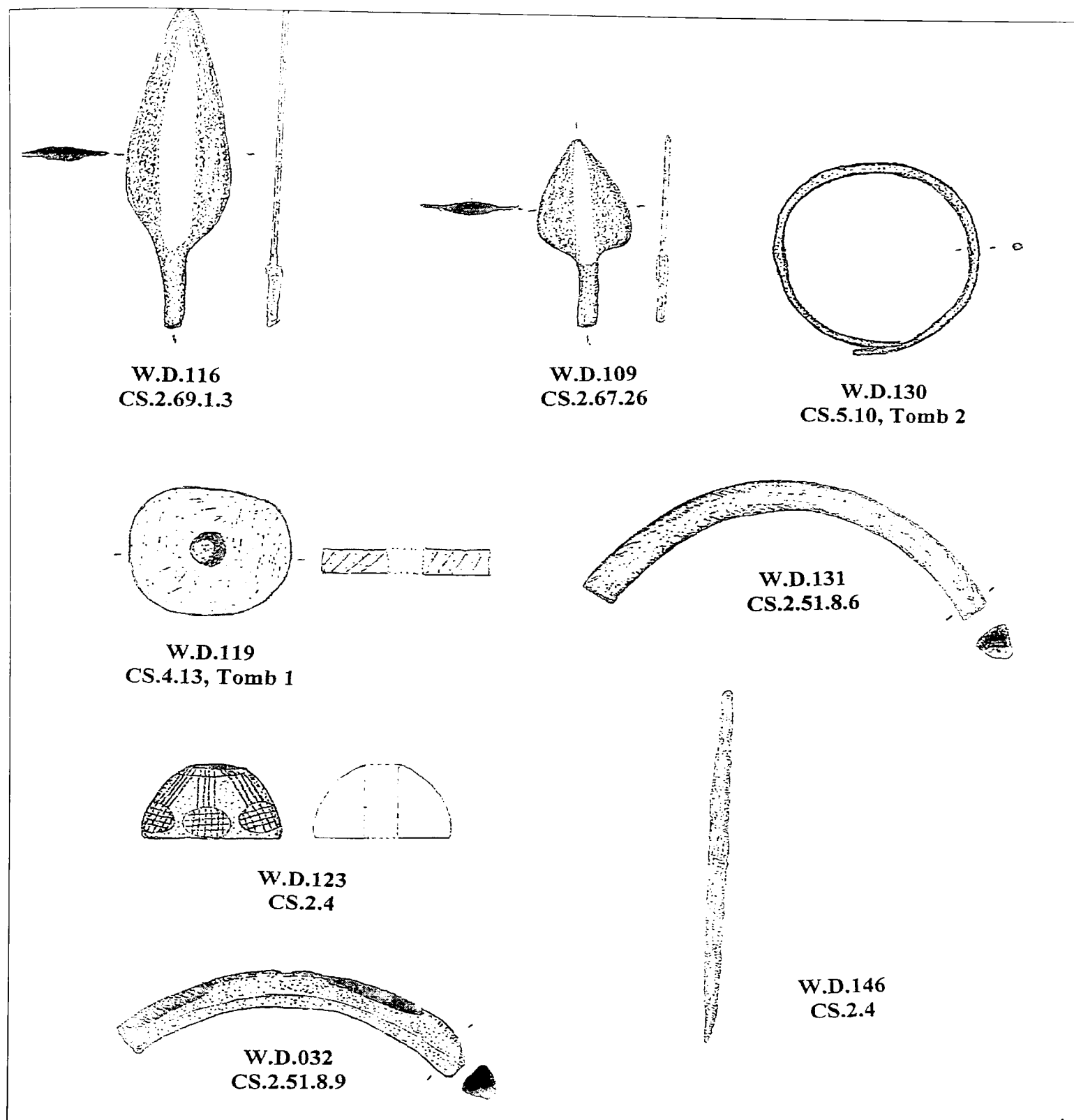


Figure 58 A group of grave goods from different sites

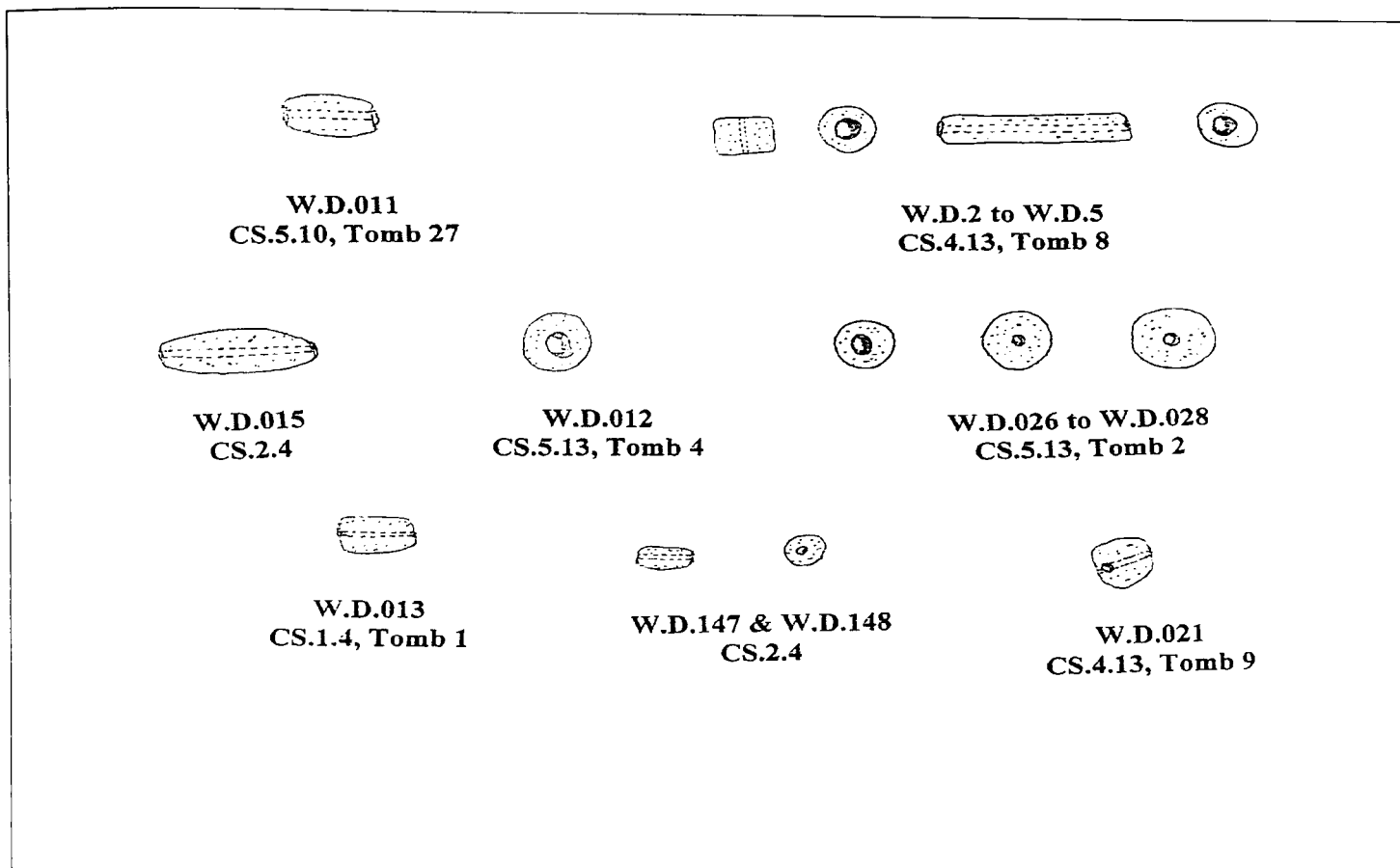


Figure 59 A collection of beads from different tombs

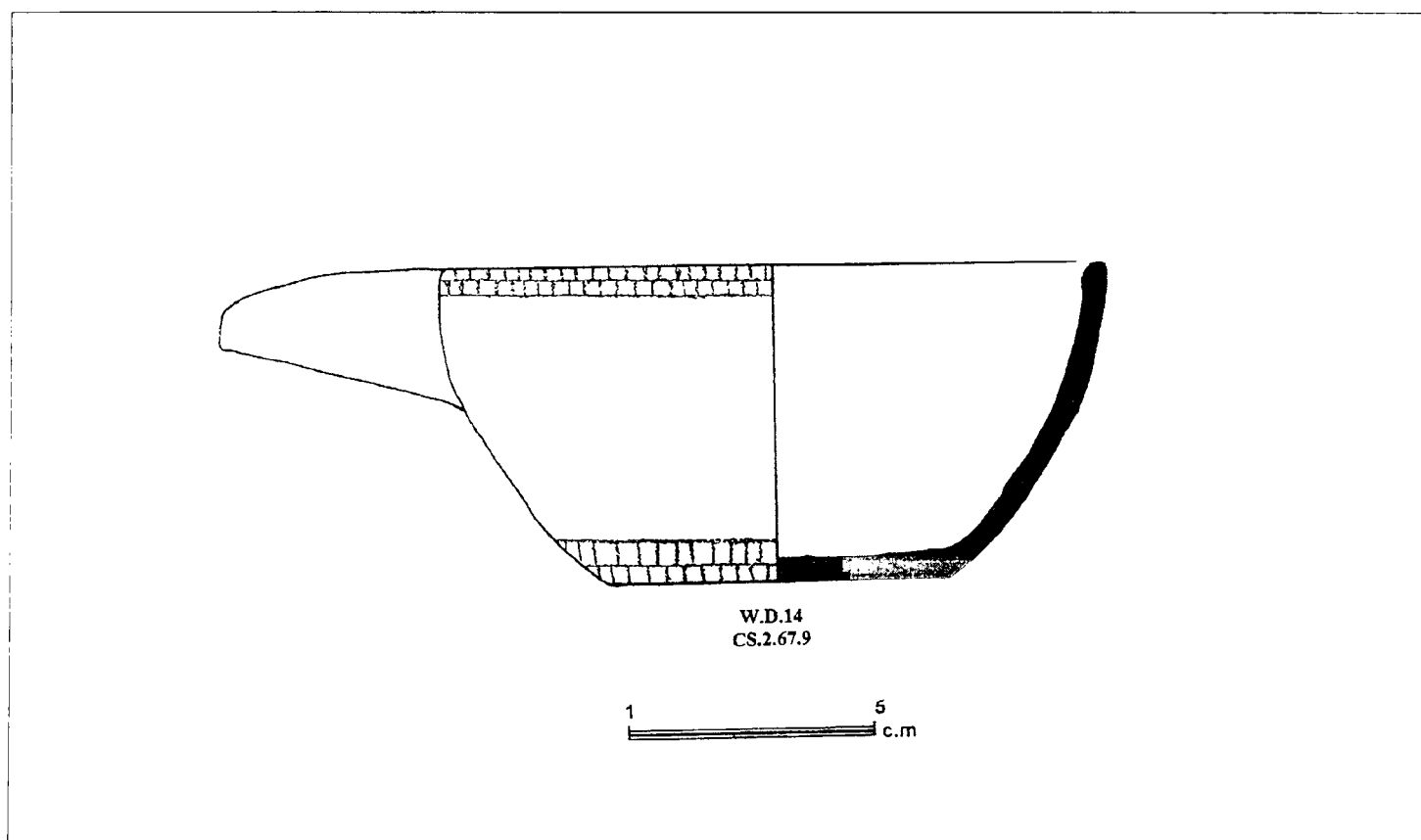


Figure 60 A spouted chlorite bowl from site CS.2.67, Tomb 9

Mahleya CS.2.50

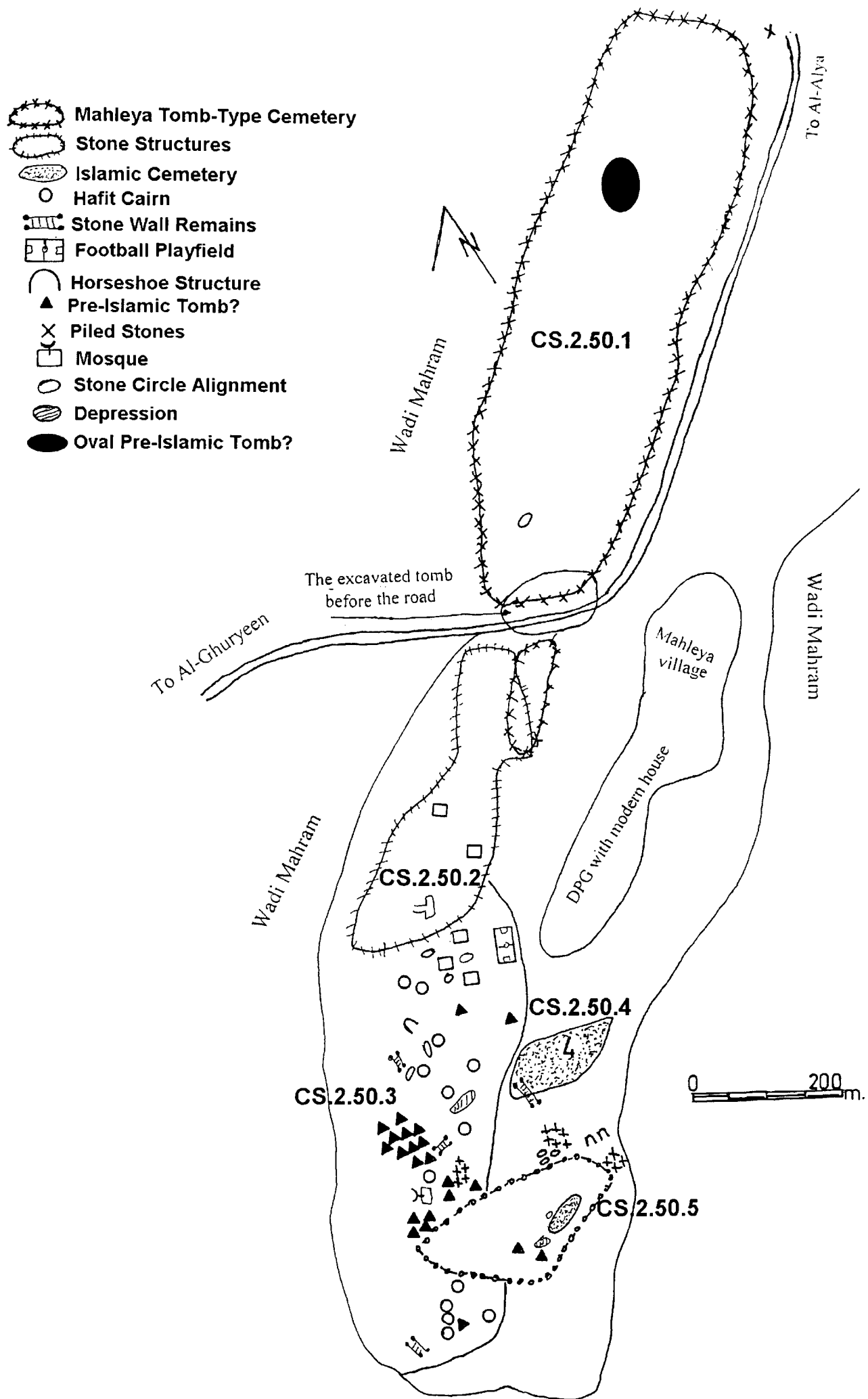


Figure 61 Sketch plan for site CS.2.50 and its archaeological features

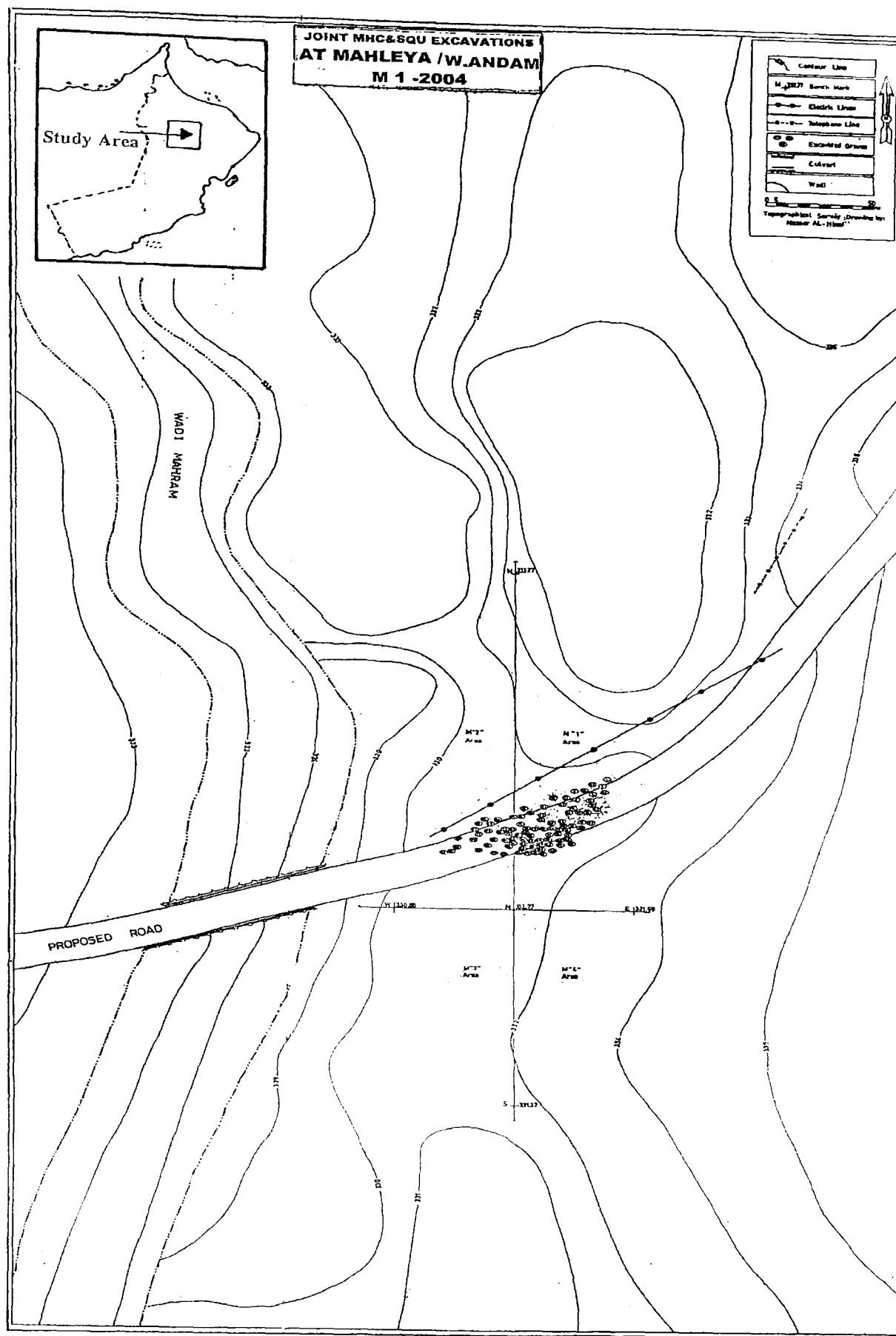


Figure 62 Topographic plan of the excavated tombs at site CS.2.50 (after El-Mahi & Al-Jahwari 2005: 58)

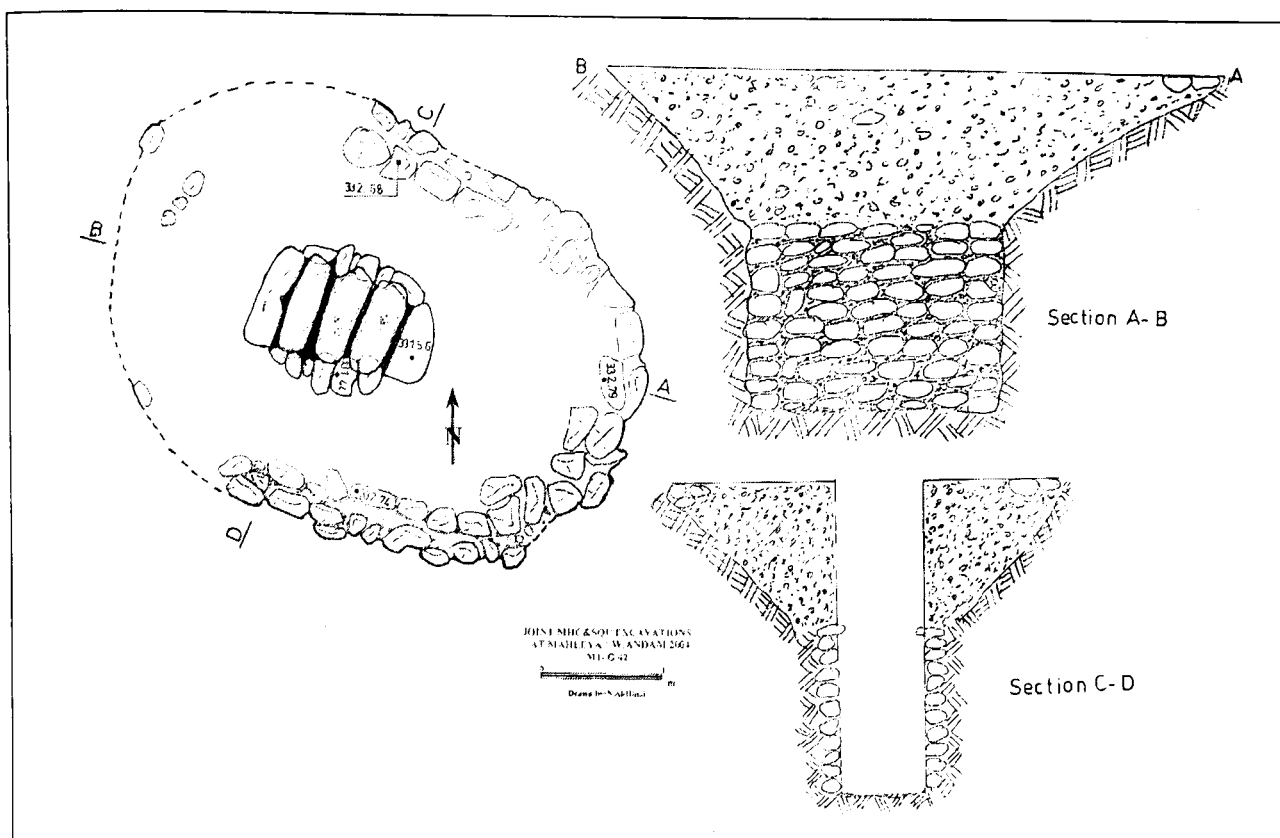


Figure 63 Section plan of one of the excavated tombs at CS.2.50.1

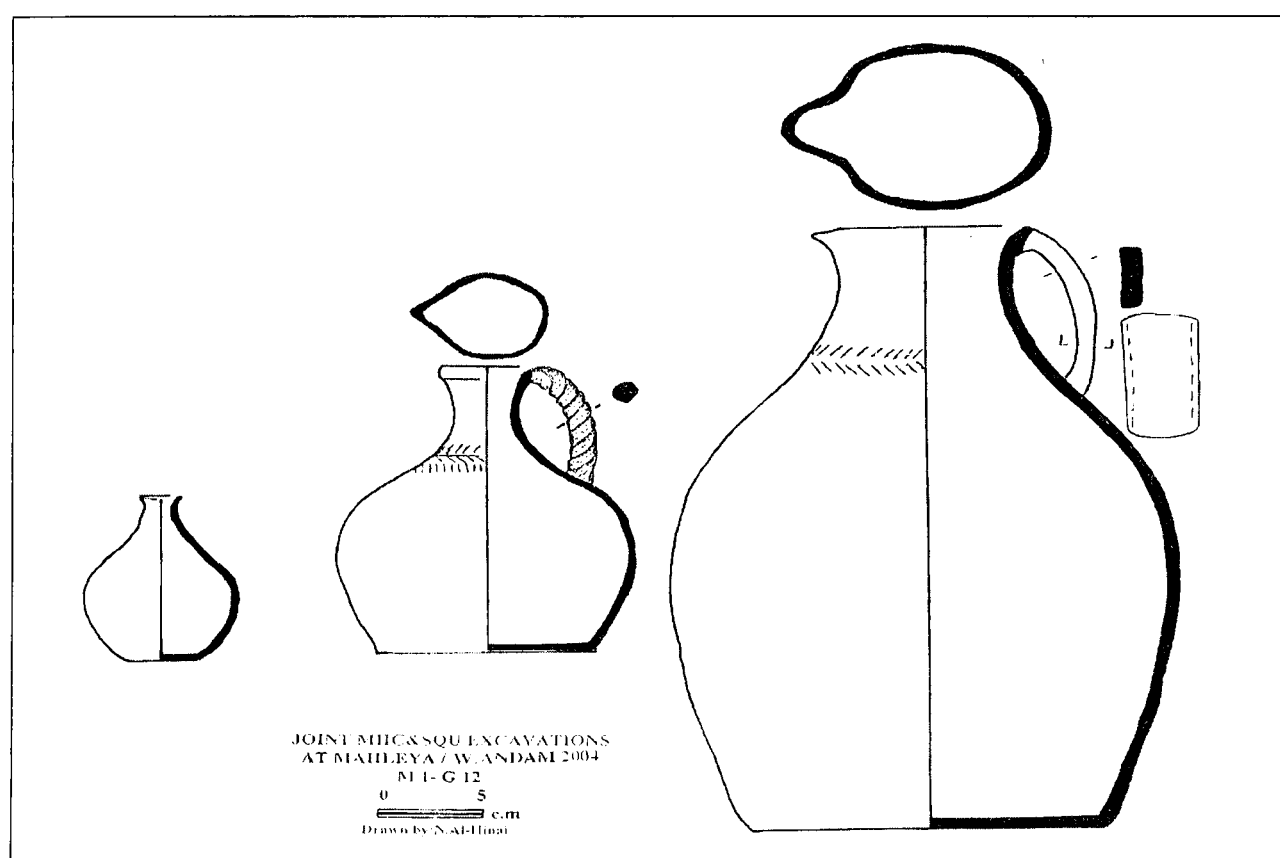


Figure 64 Examples of the pottery jars found within the excavated tombs at CS.2.50.1

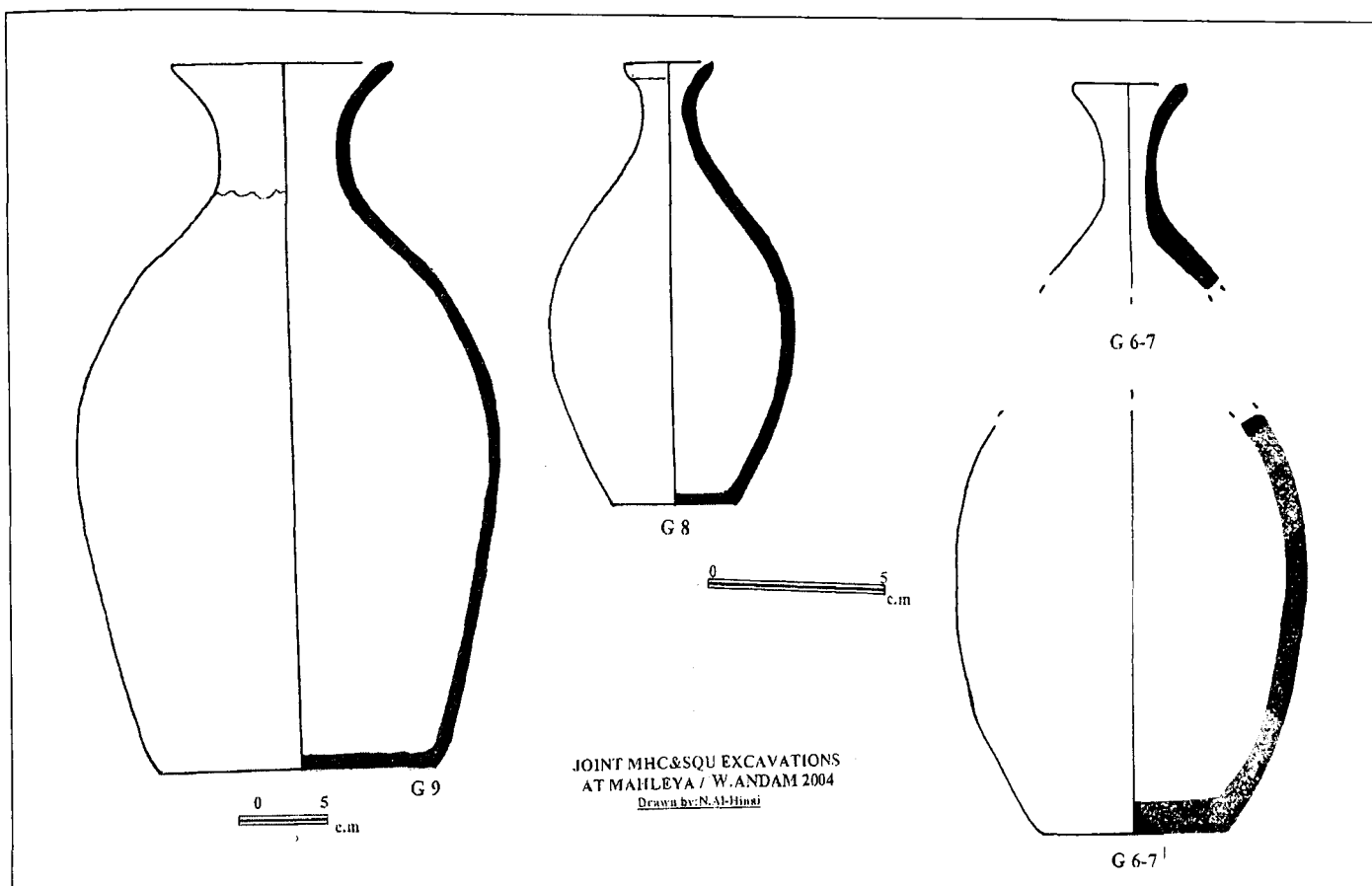


Figure 65 Examples of the pottery jars found within the excavated tombs at CS.2.50.1

Mahleya CS.2.51

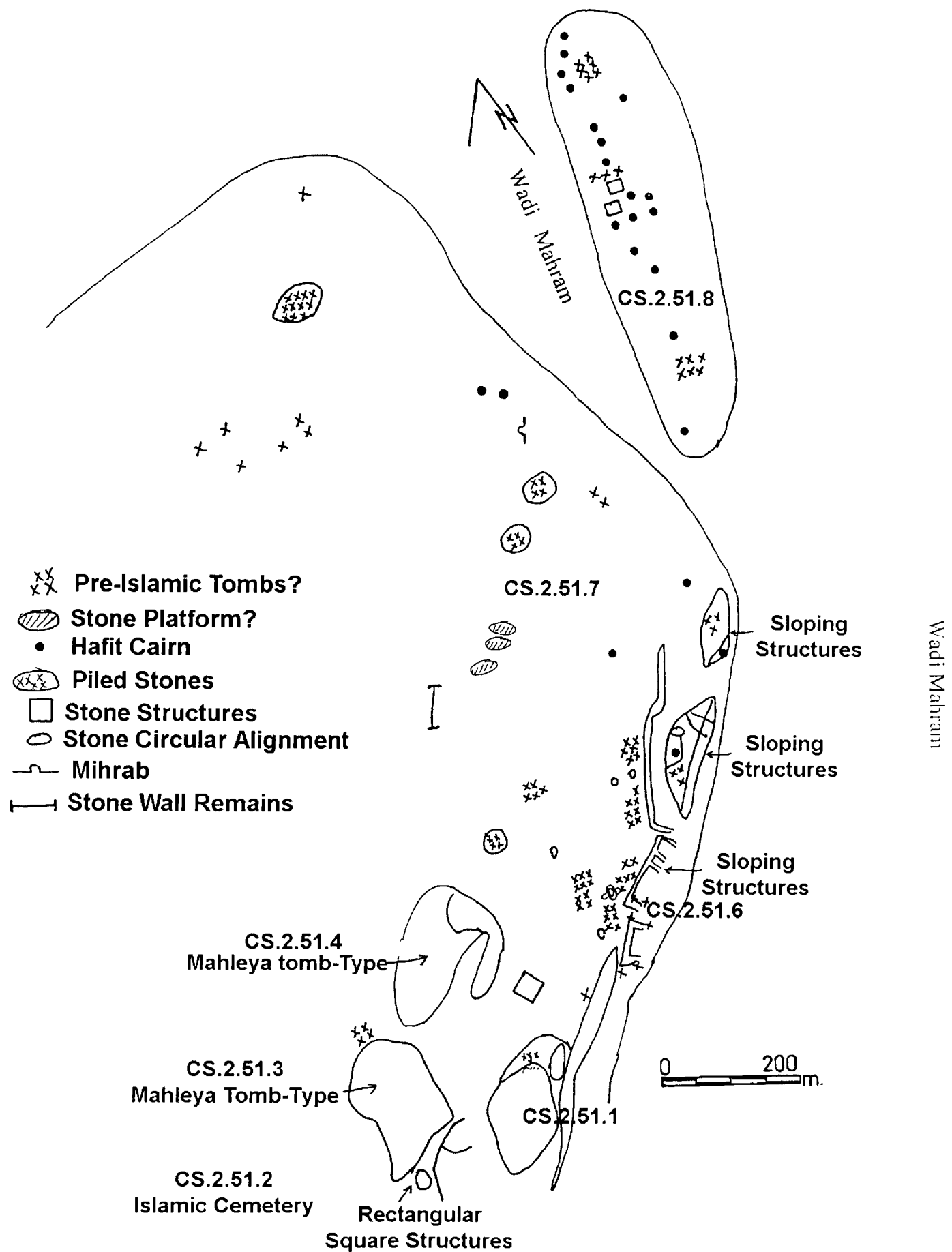


Figure 66 Sketch plan for site CS.2.51 and its archaeological features

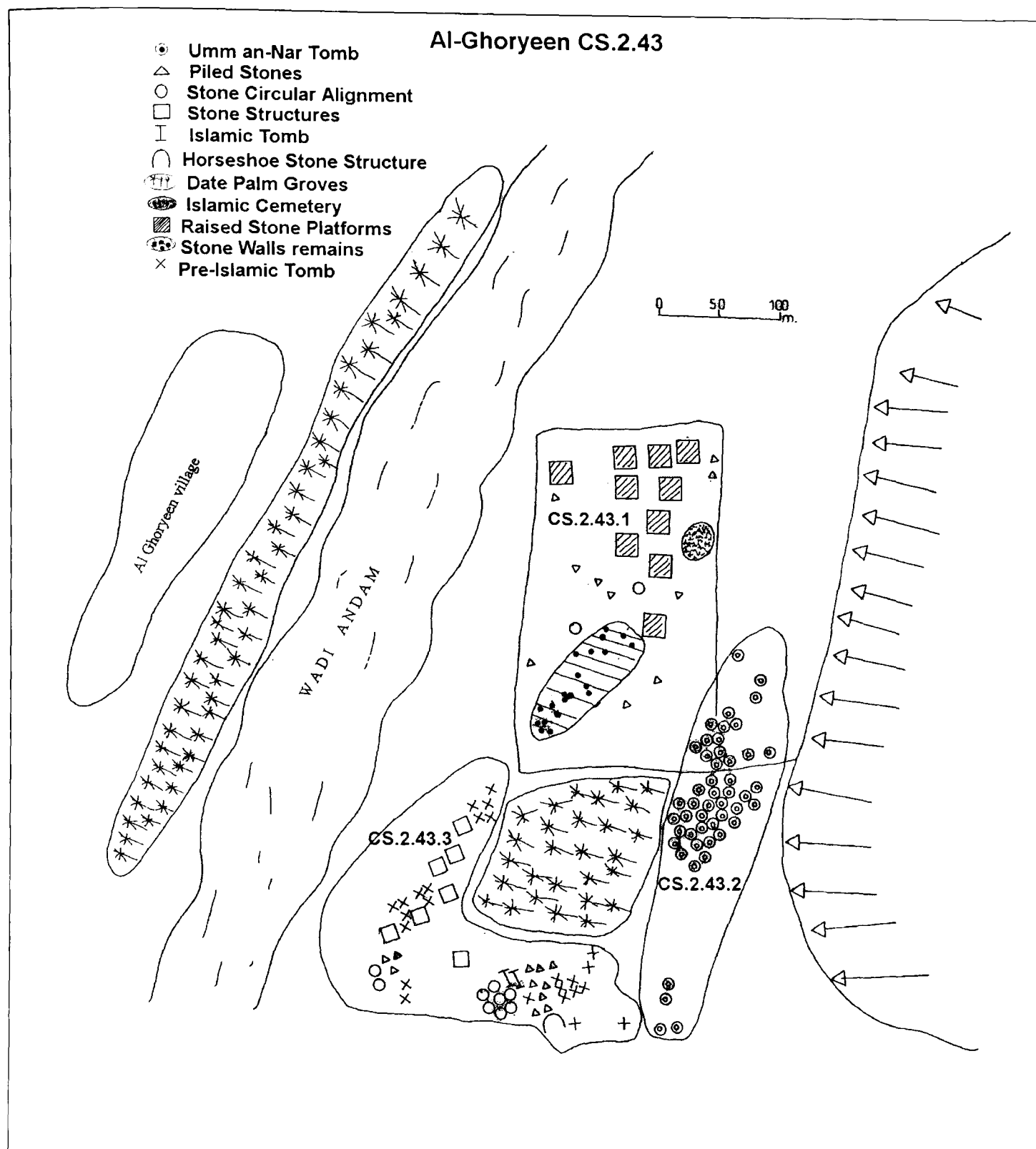


Figure 67 Sketch plan of site CS.2.43 and its archaeological features

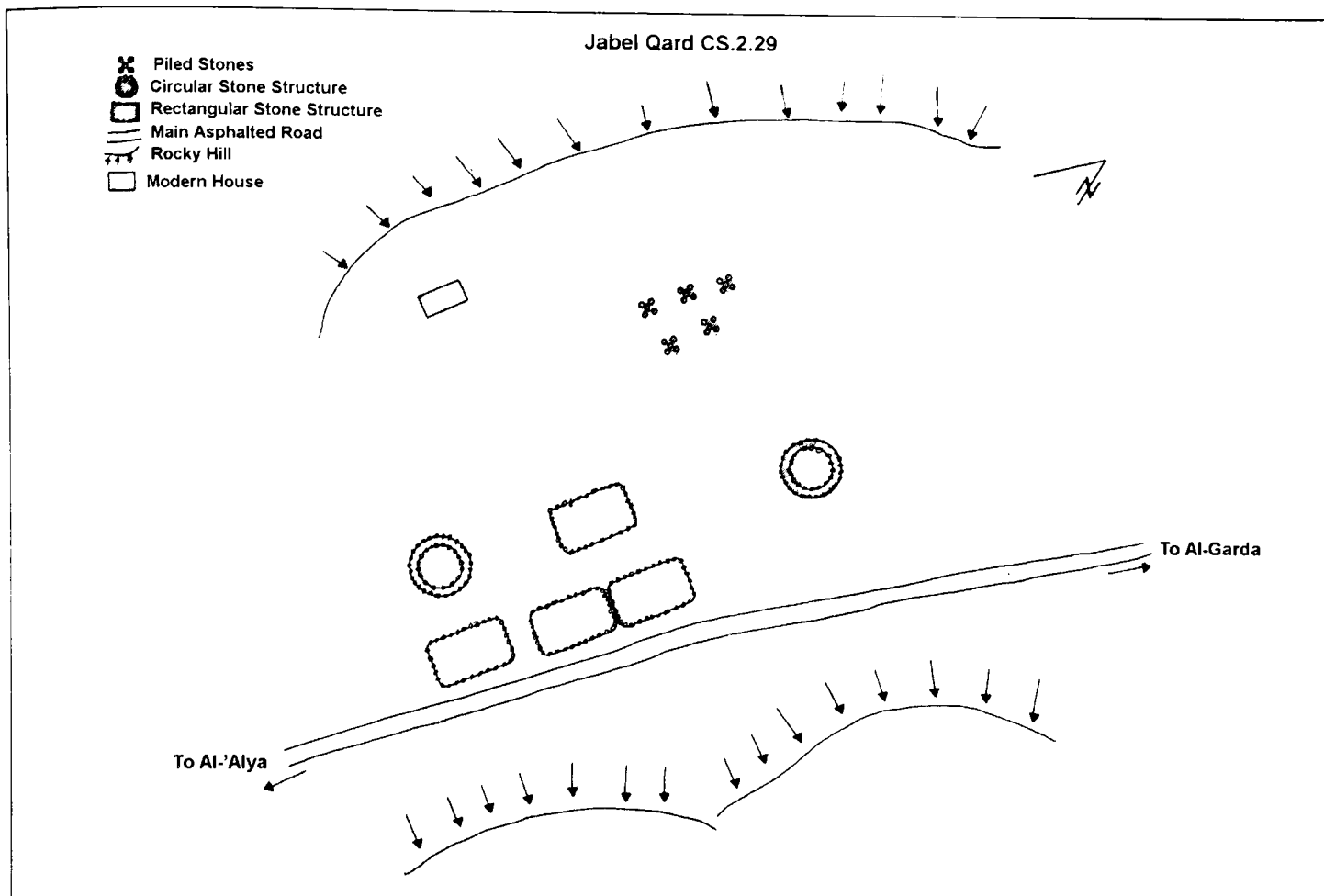


Figure 68 Sketch plan of site CS.2.29 and its archaeological features

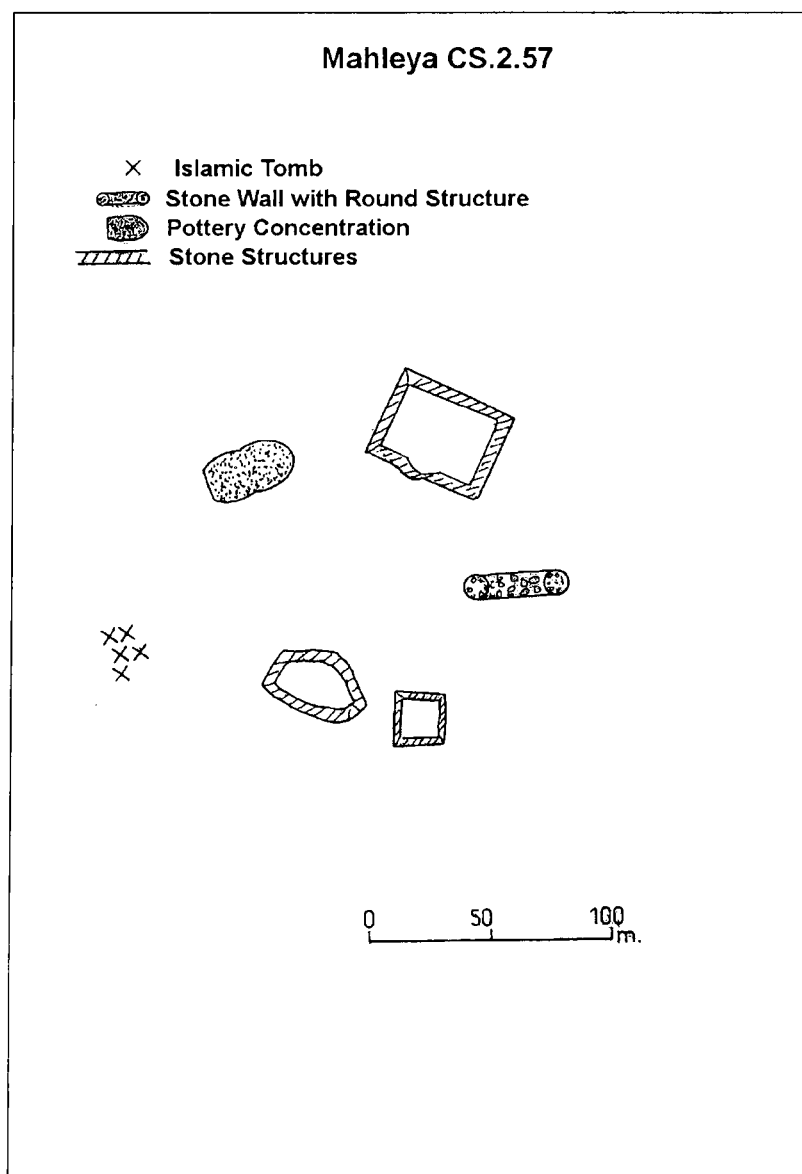


Figure 69 Sketch plan of site CS.2.57 and its archaeological features

Al-Khuraish CS.3.5

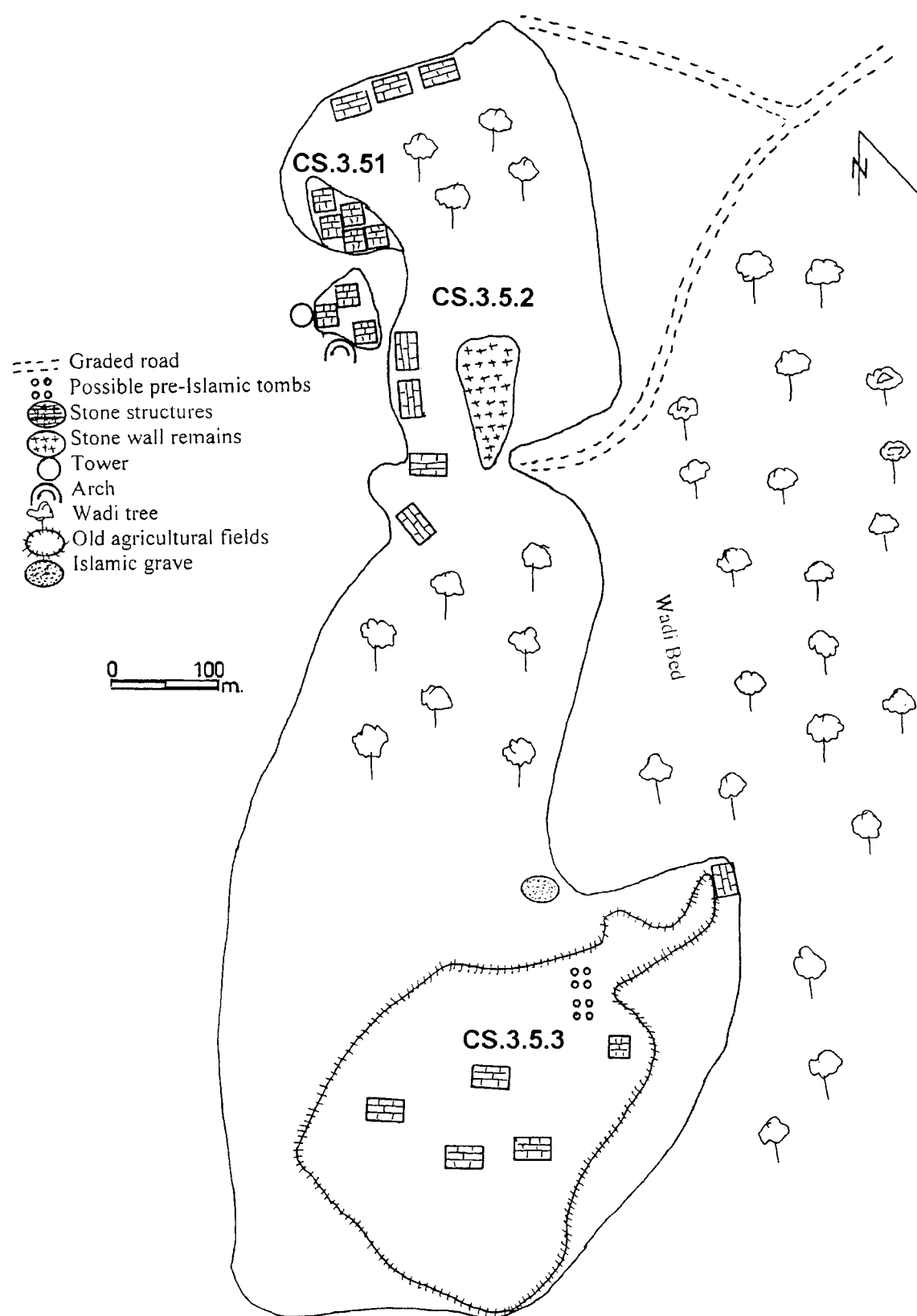


Figure 70 Sketch plan for site CS.3.5 and its archaeological features

Al-Khuraish CS.3.7

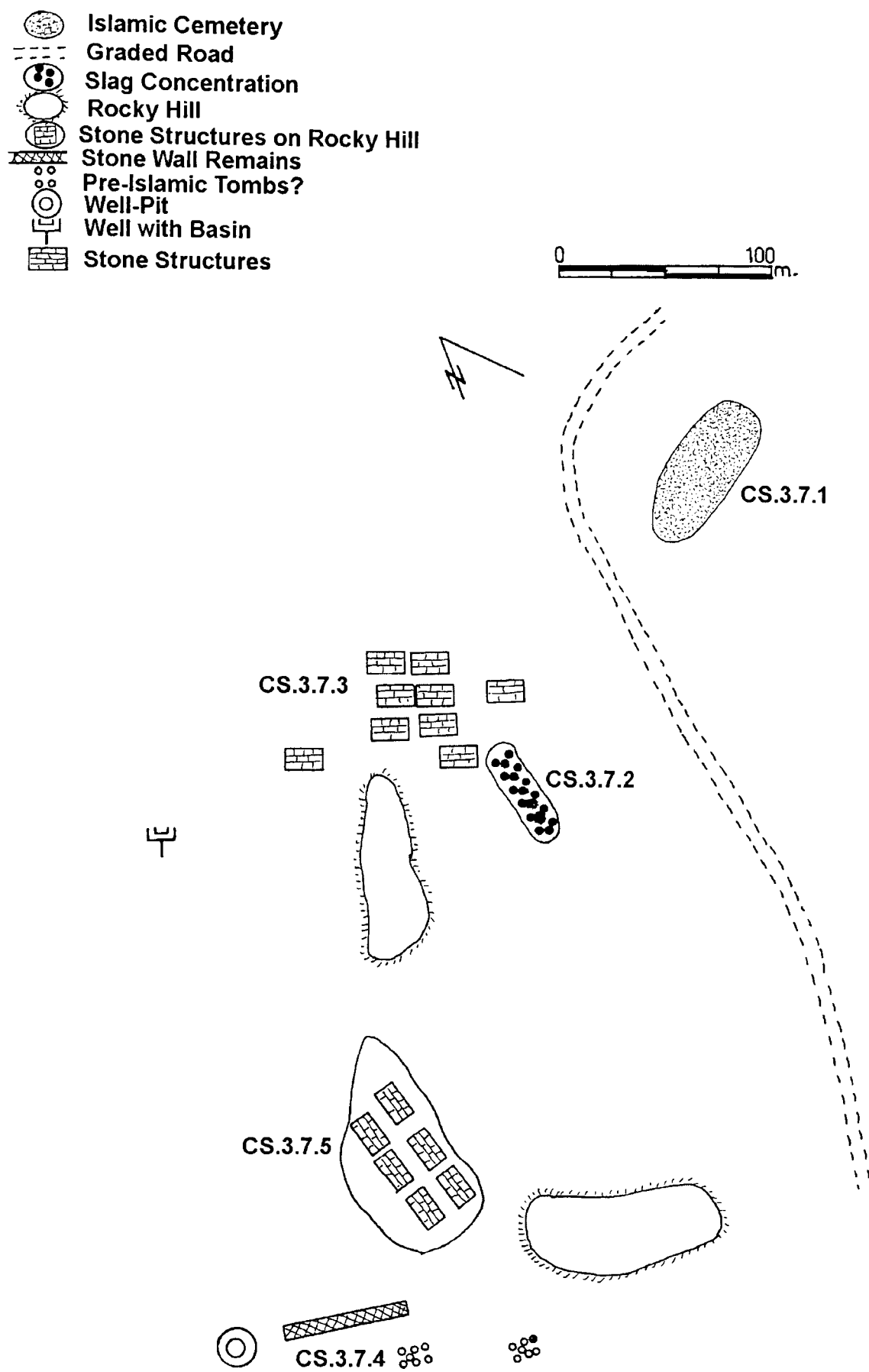


Figure 71 Sketch plan for site CS.3.7 and its archaeological features

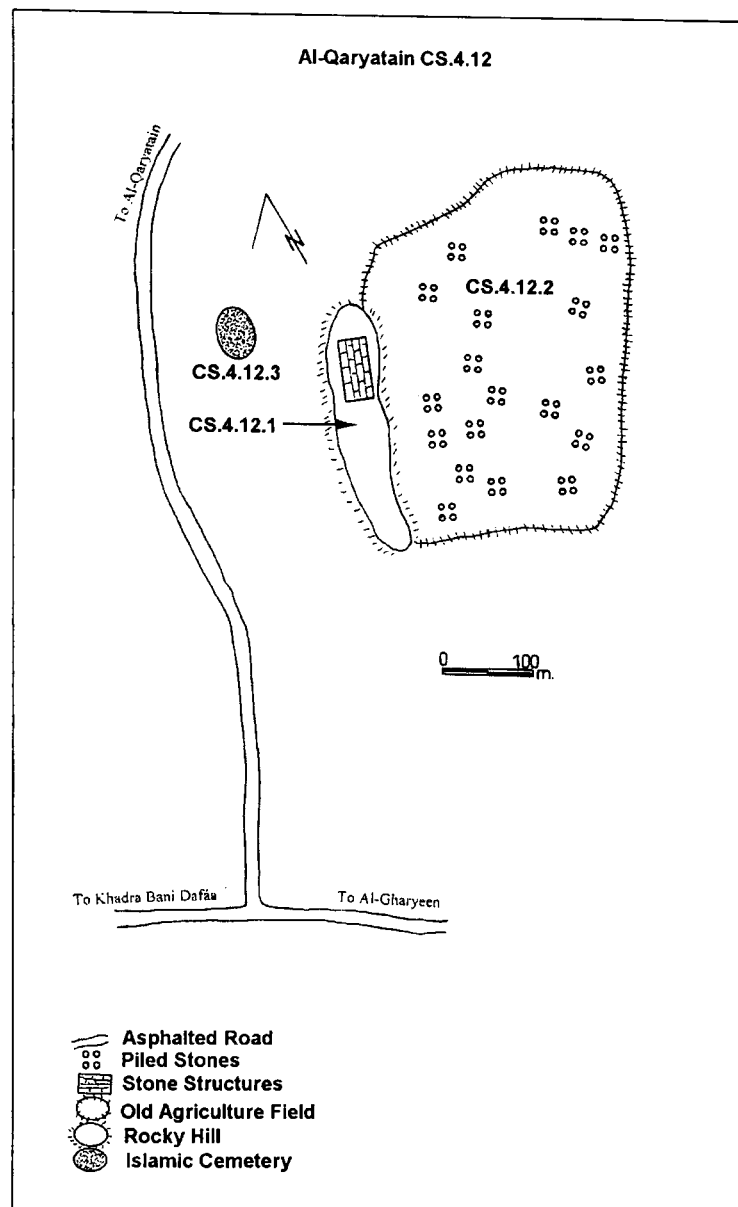


Figure 72 Sketch plan for site CS.4.12 and its archaeological features

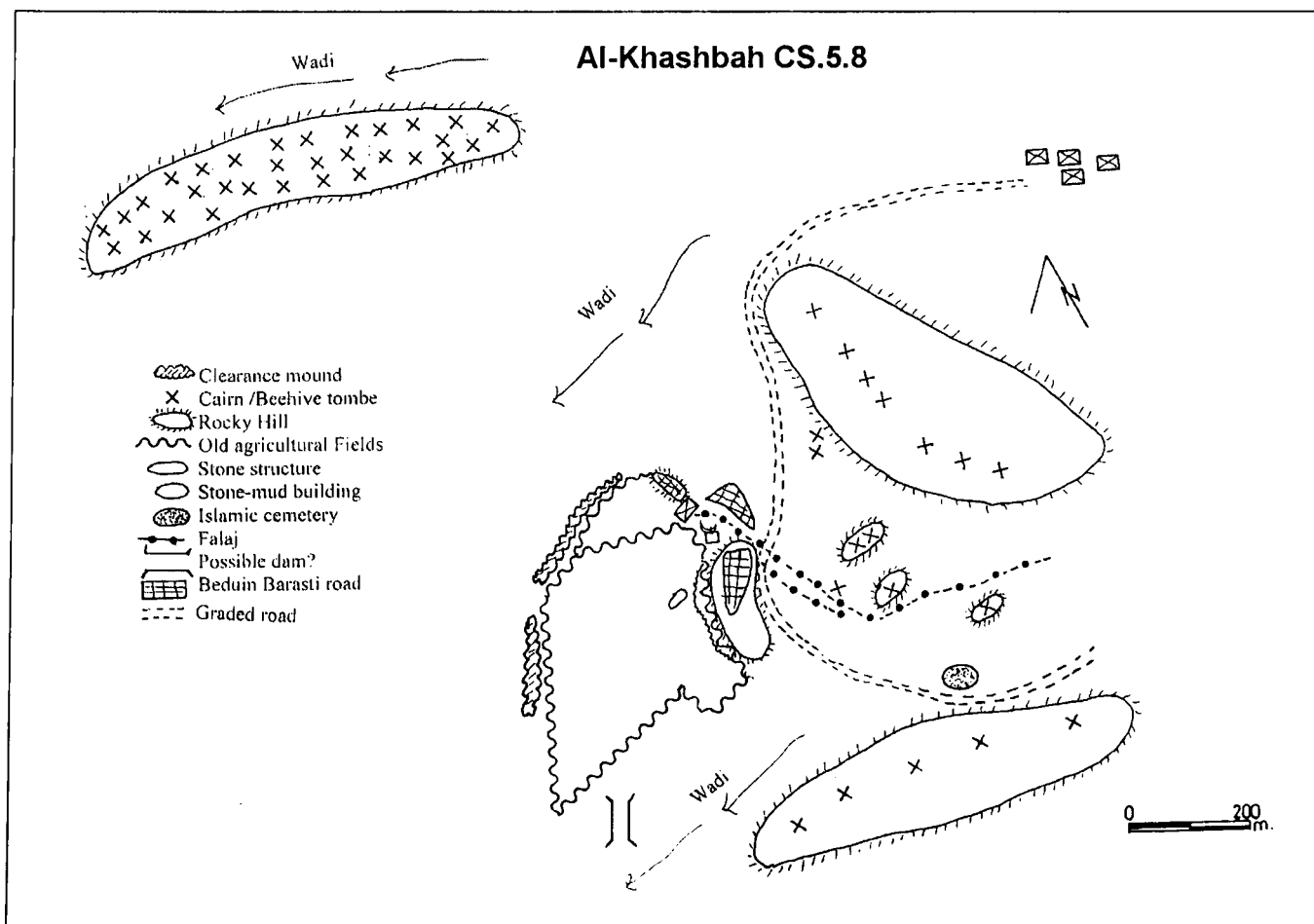


Figure 73 Sketch plan for site CS.5.8 and its archaeological features

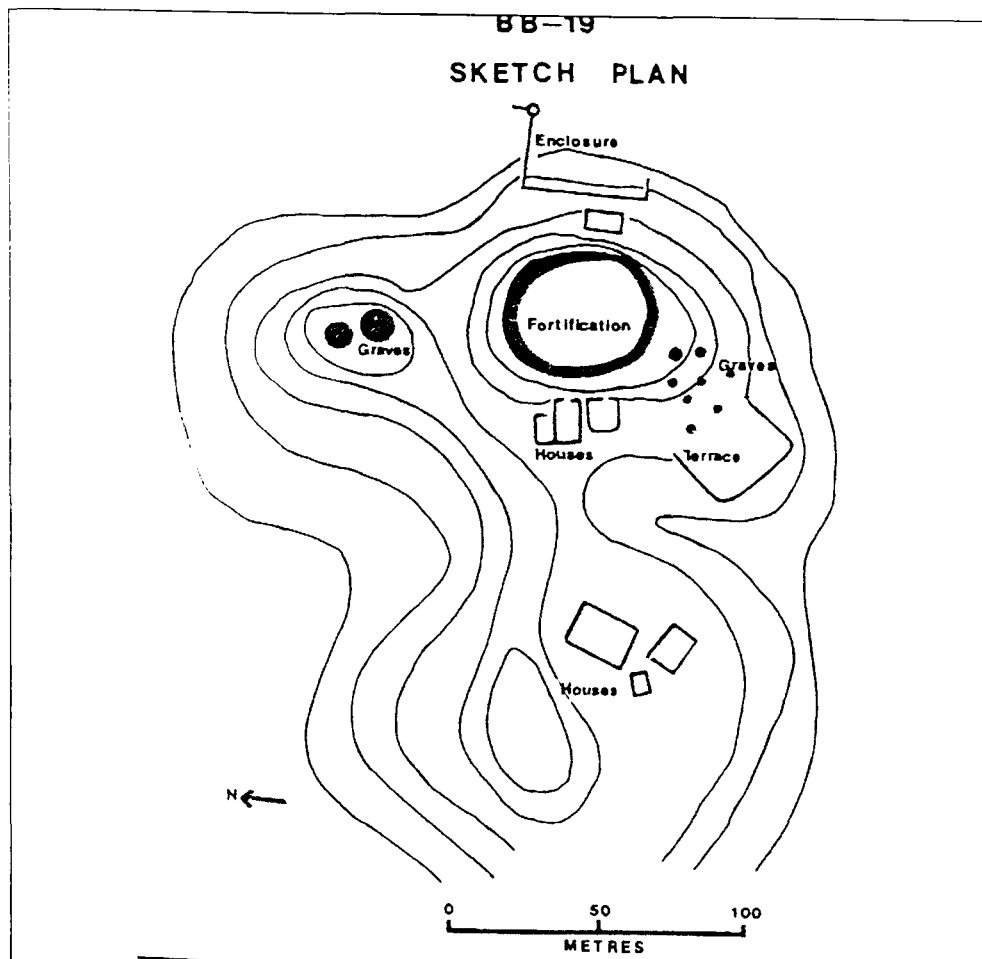


Figure 74 Sketch plan of settlement BB-19 at Wadi Bahla (after Hastings et al. 1975: fig.8, 21)

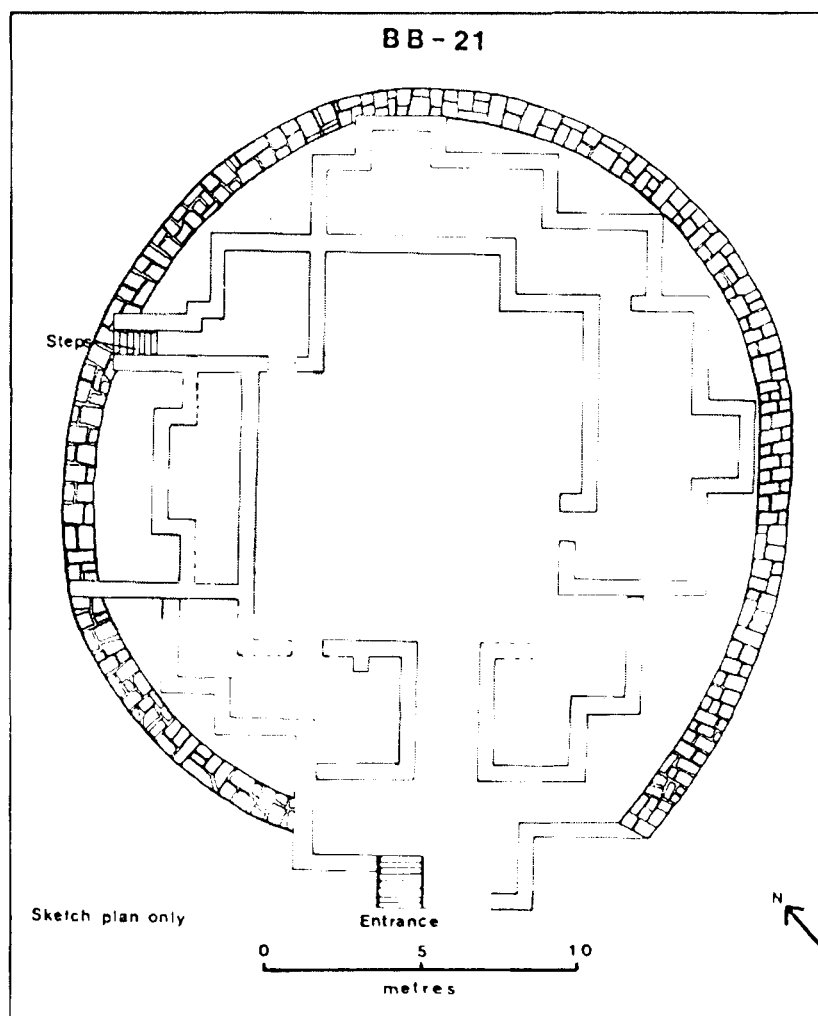


Figure 75 Sketch plan of structure BB-21 at Wadi Bahla (after Humphries 1974: fig.4, 61)

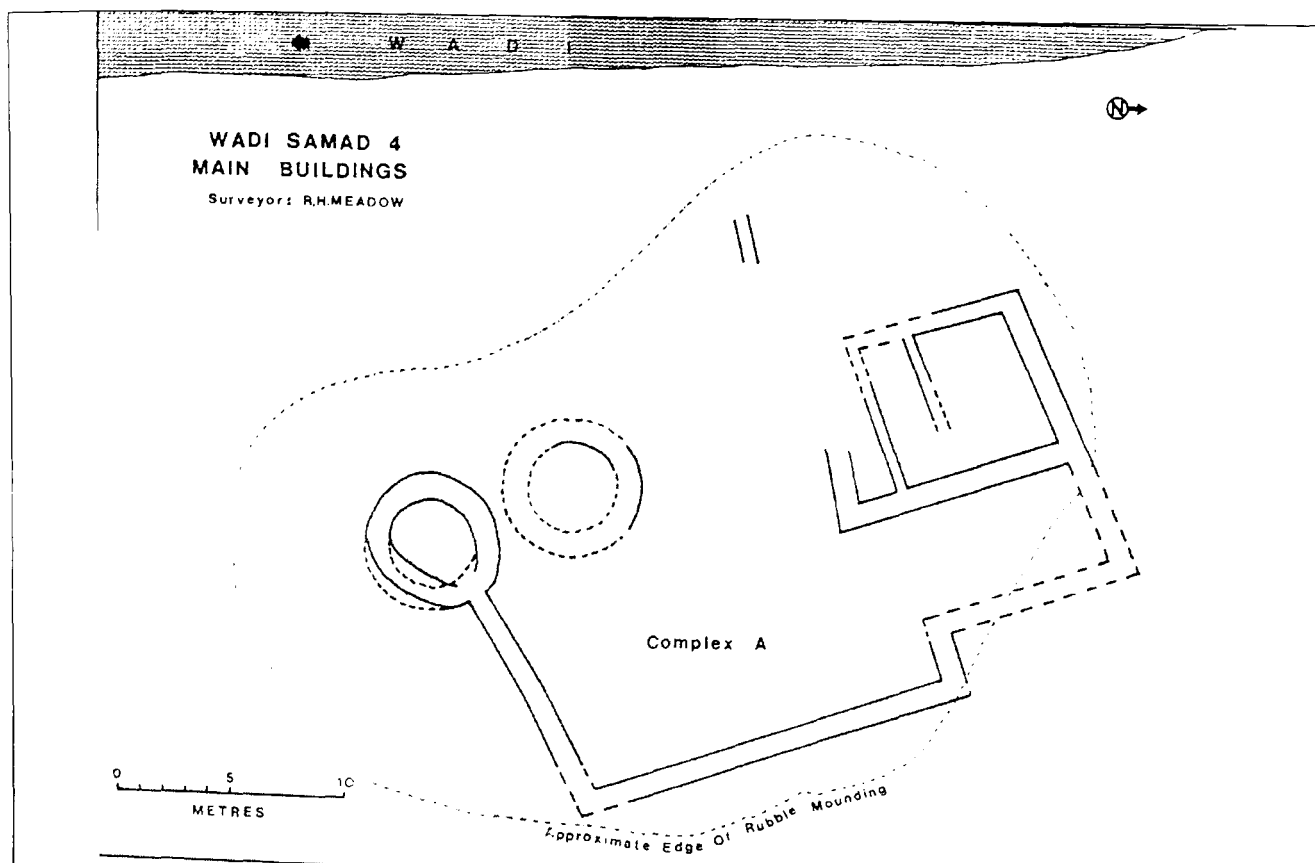


Figure 76 Sketch plan of the main buildings at Wadi Samad 4 (after Hastings et al. 1975: fig.3, 17)

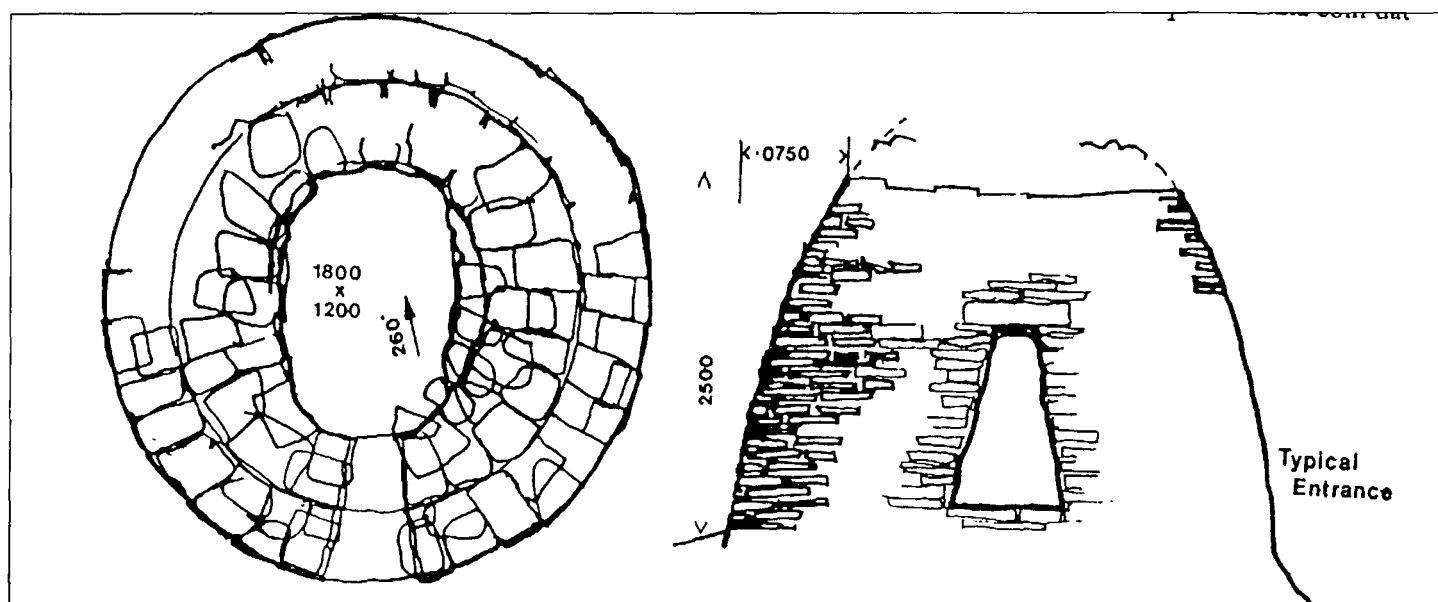


Figure 77 Sketch plan and elevation of tomb at Zukayt (Site 23) (after de Cardi, Collier & Doe 1976: fig.302, 159)

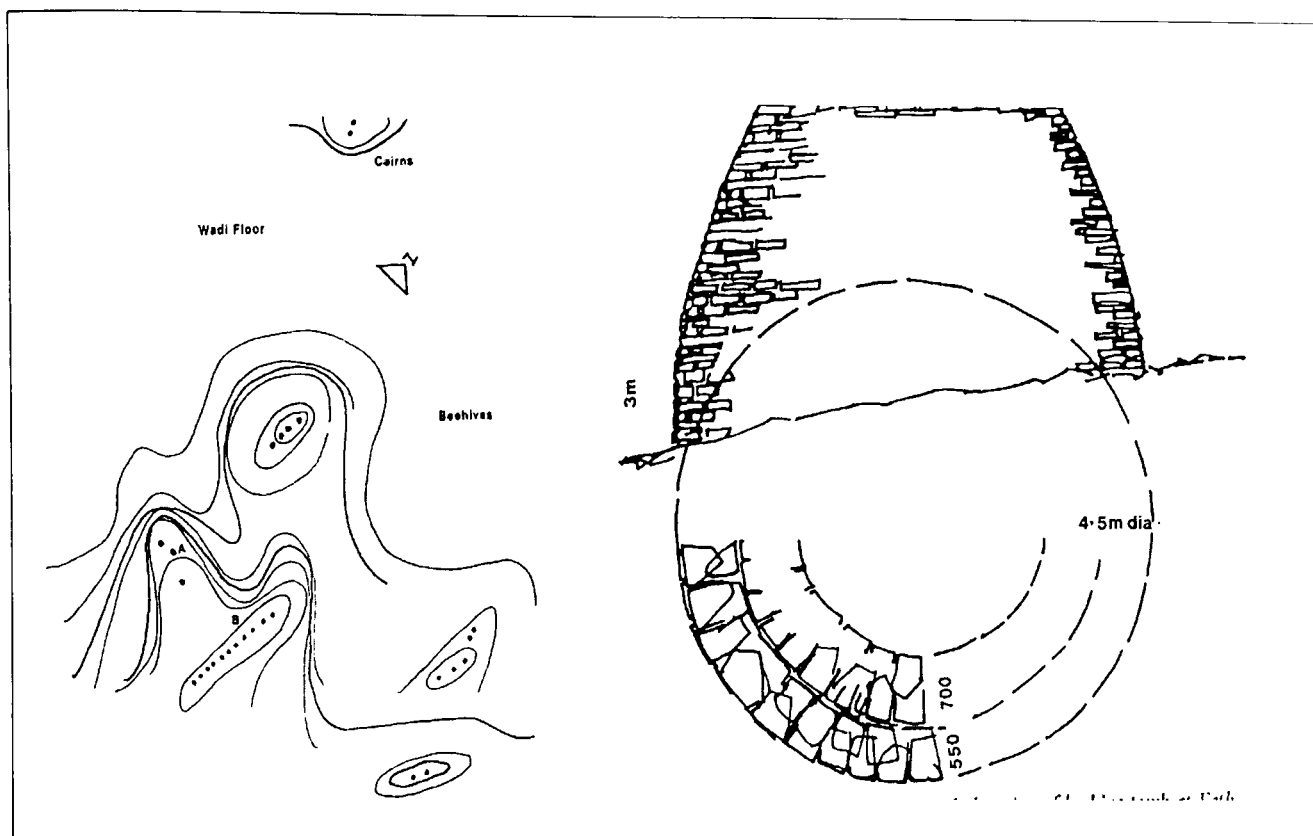


Figure 78 Sketch plan showing the location of the cairns (left) and a sketch plan and elevation of beehive tomb (right) from Fath (Site 18) (after de Cardi, Collier & Doe 1976: fig.30-31, 157)

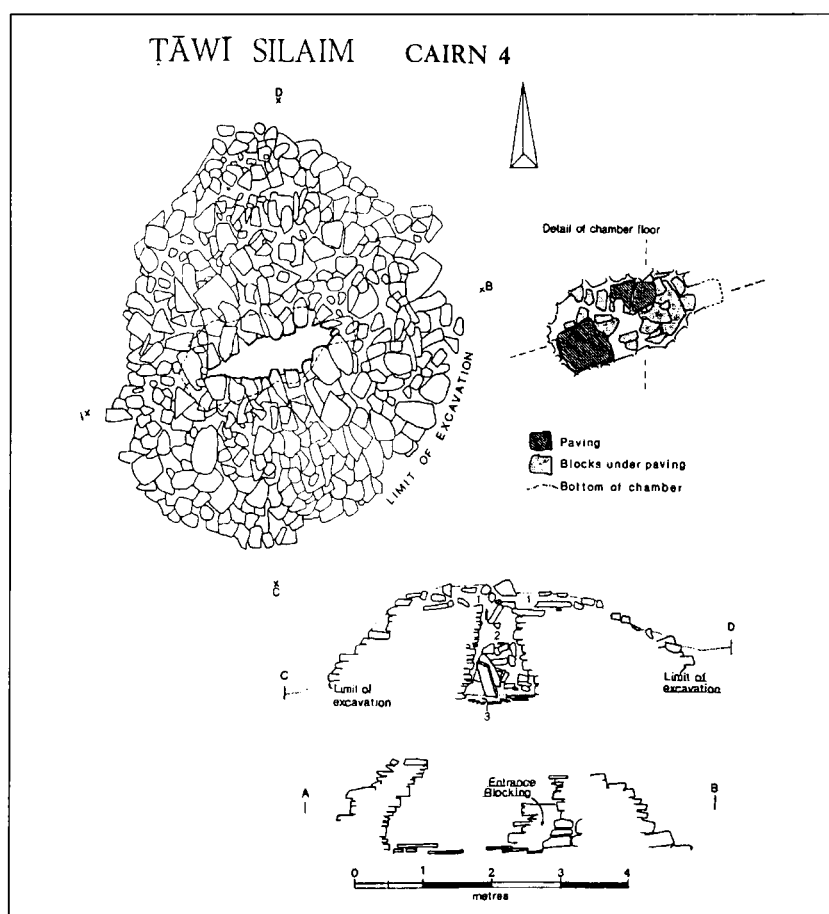


Figure 79 Sketch plan of Cairn 4 at Tawi Silaim (after de Cardi, Bell & Starling 1979: fig.5, 69)

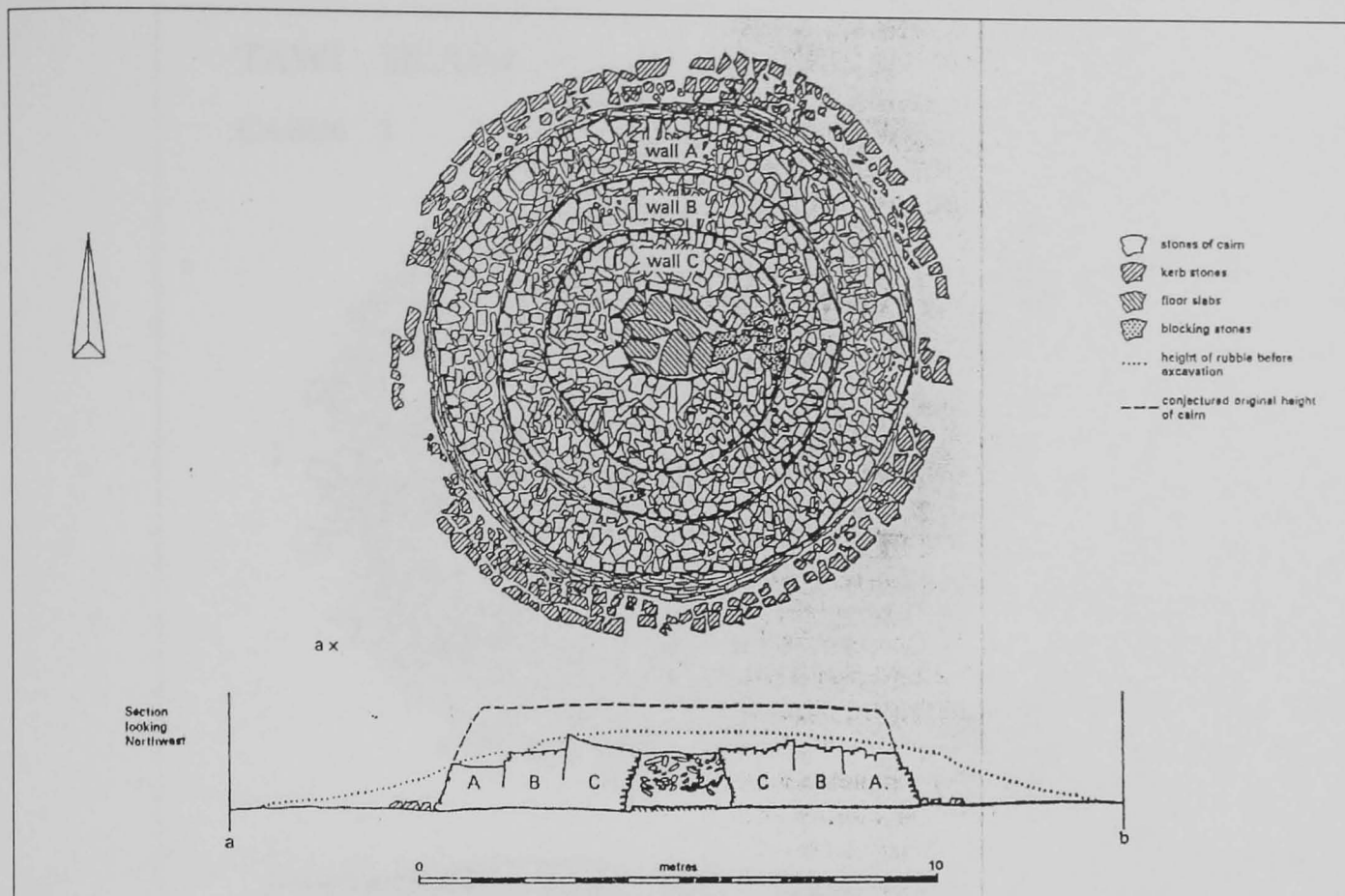


Figure 80 Sketch plan of Cairn 1 at Tawi Silaim (after de Cardi, Doe & Roskams 1977: fig.2, 20)

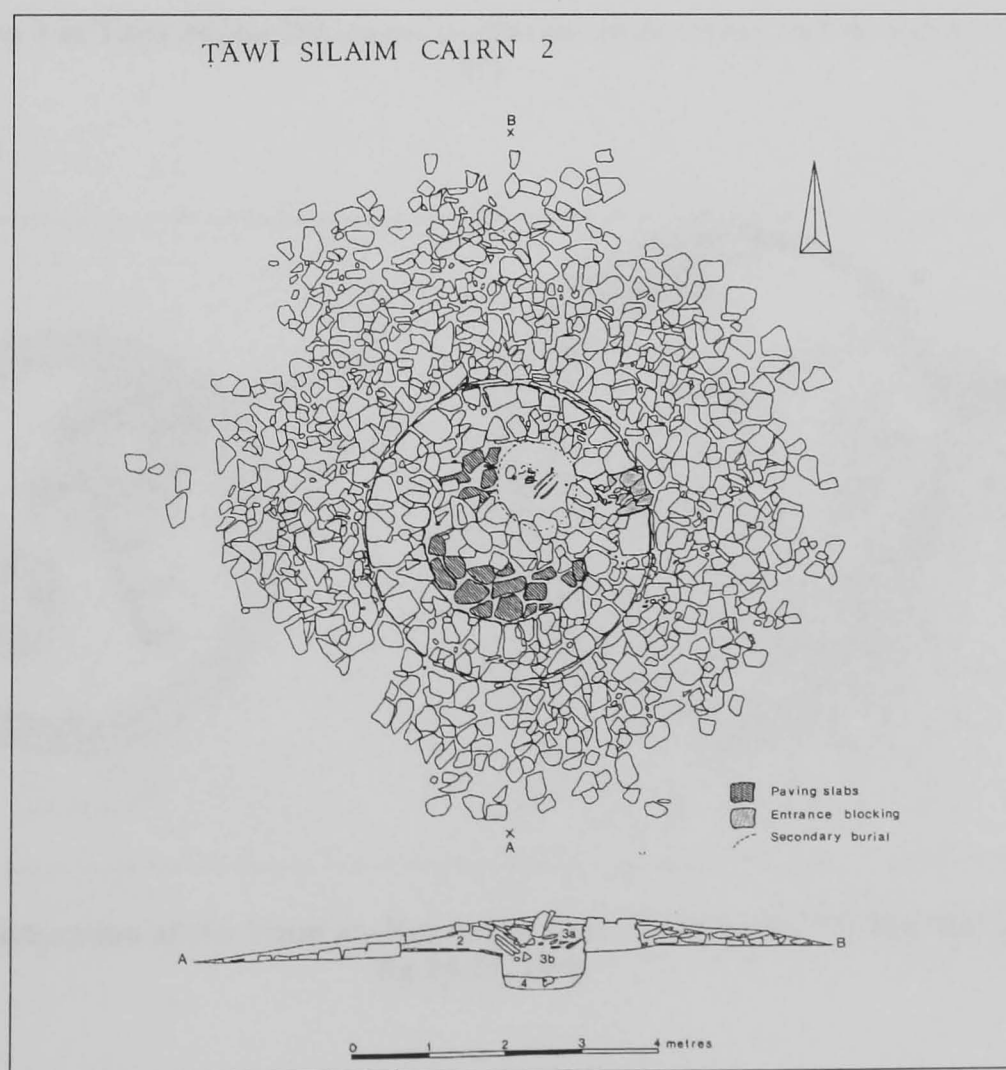


Figure 81 Sketch plan of Cairn 2 at Tawi Silaim before excavation (after de Cardi, Bell & Starling 1977: fig.3, 65)

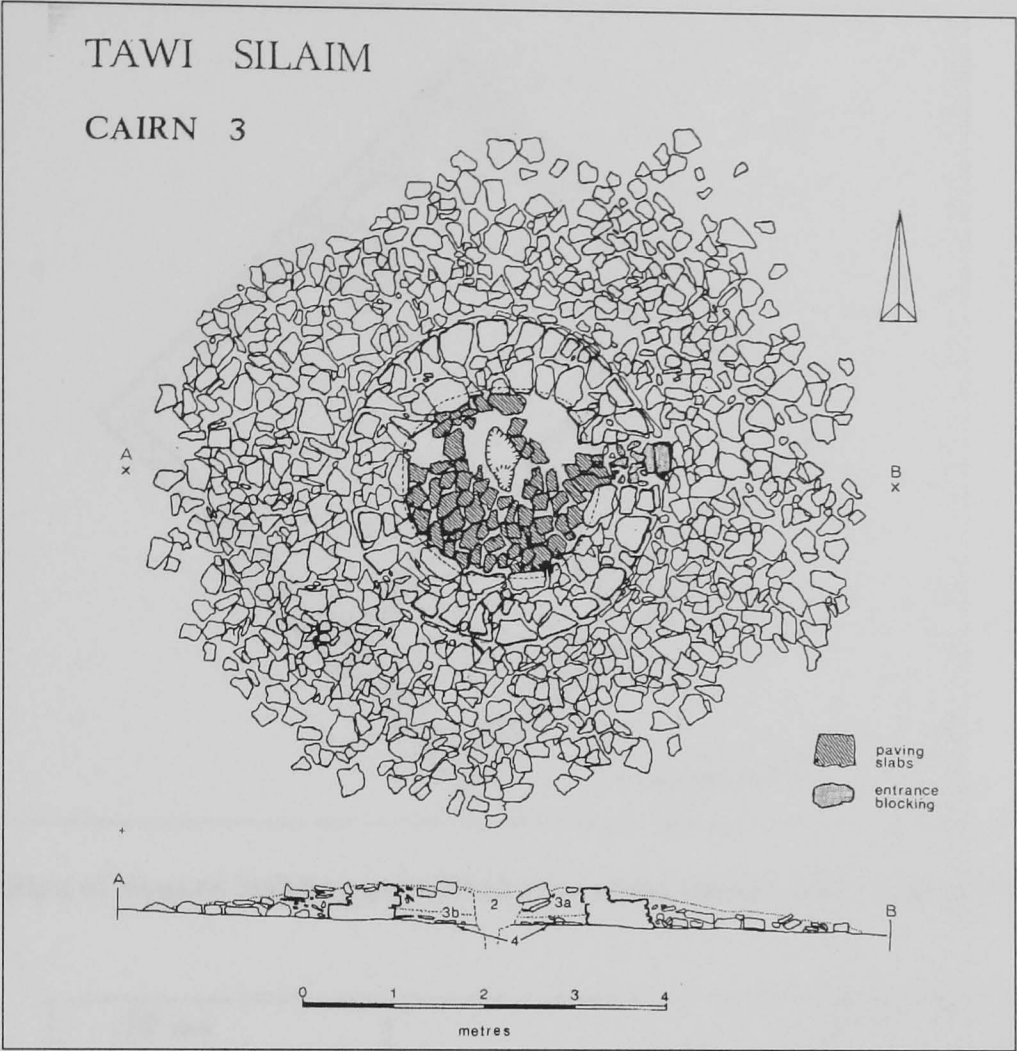


Figure 82 Cairn 3 at Tawi Silaim before excavation (after de Cardi, Bell & Starling 1977: fig.4, 67)

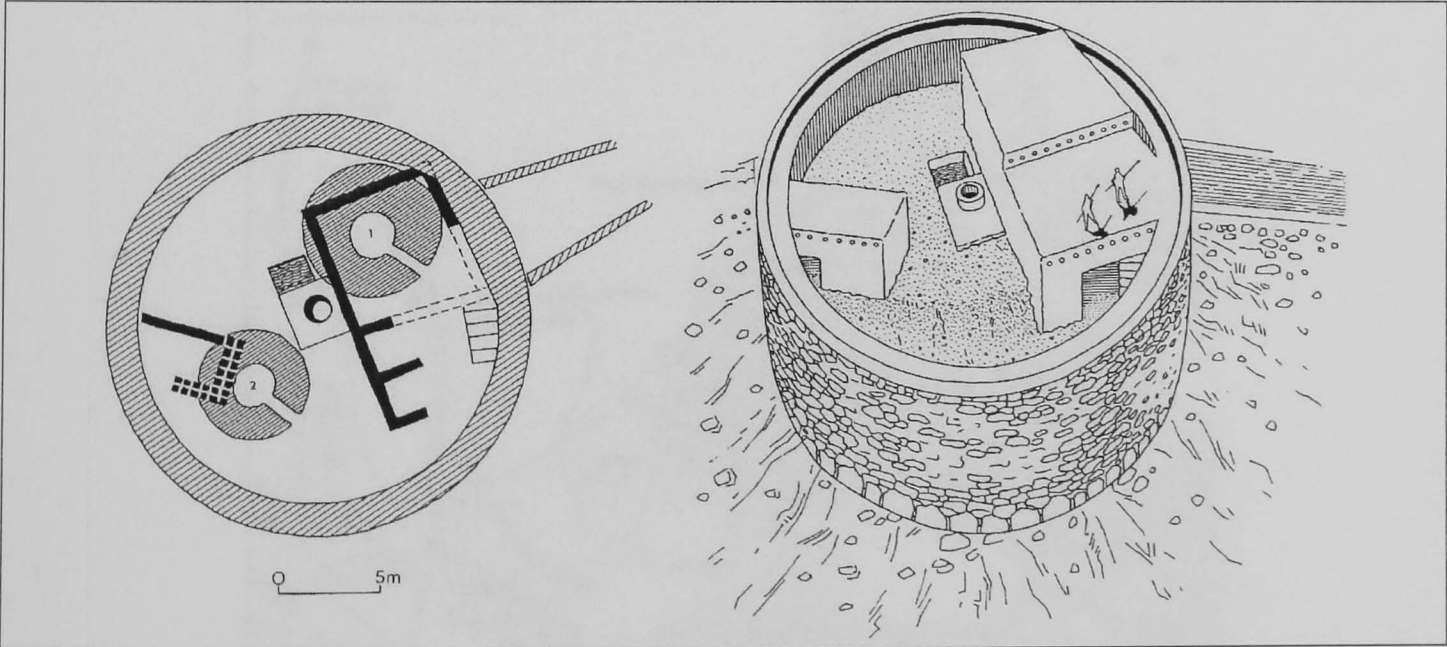


Figure 83 Reconstruction of the Umm an-Nar round tower at Maysar-25 (after Weisgerber 1981, fig.26-27, 199)

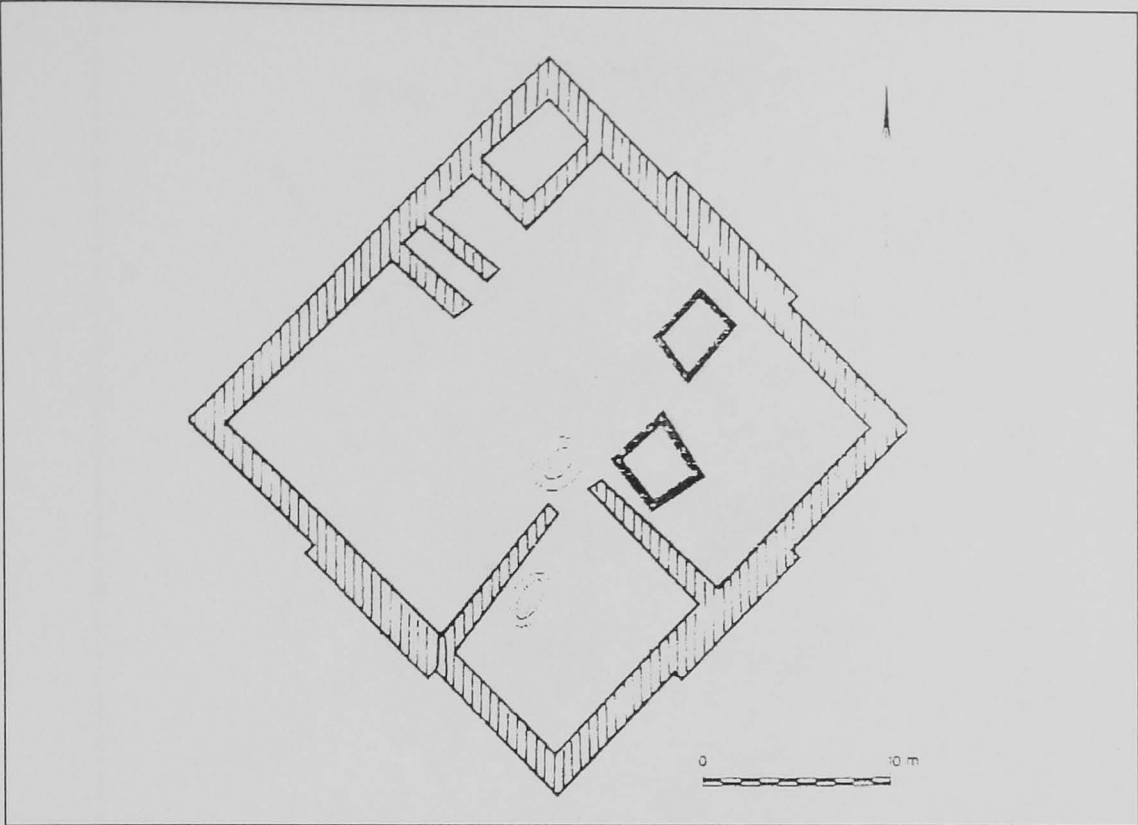


Figure 84 Plan of Square building at al-Hind near al-Khashbah (after Yule 1993: fig.2a, 144)

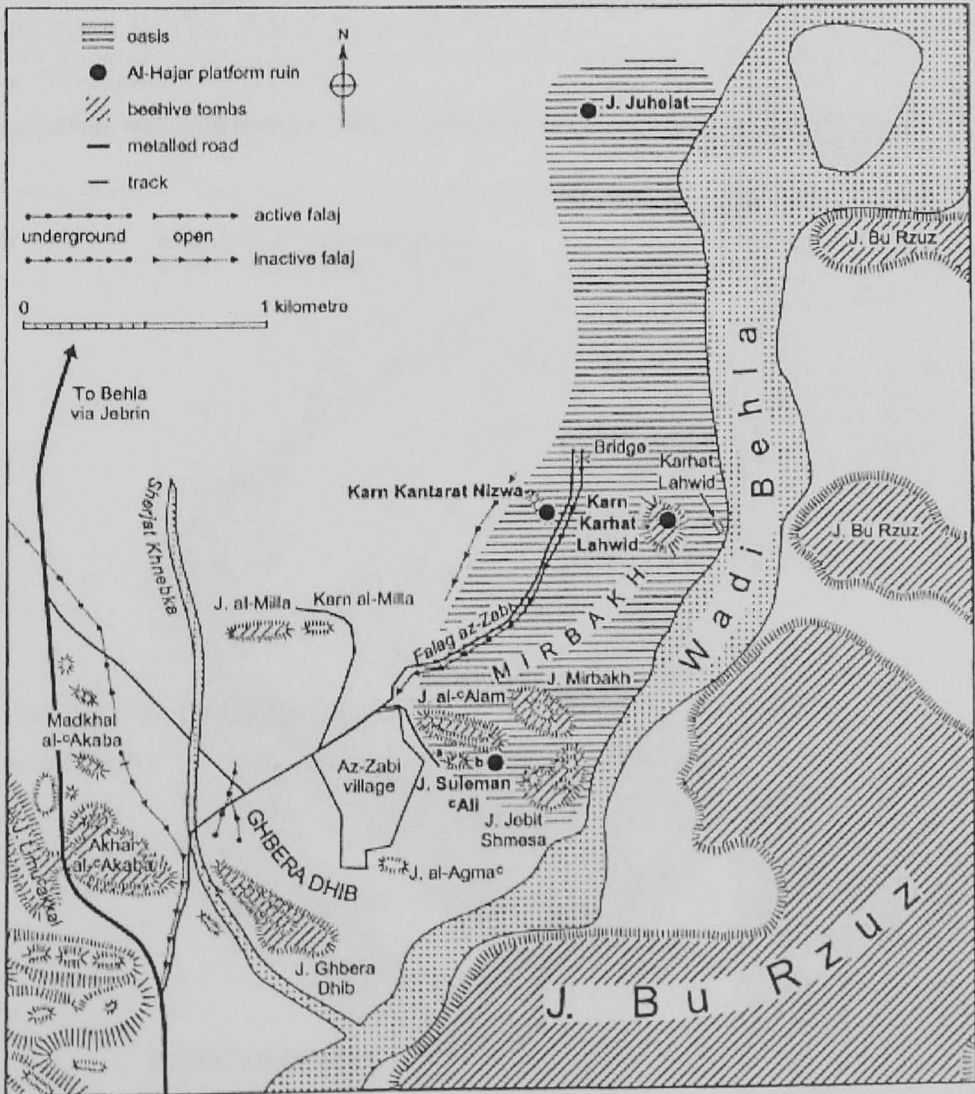


Figure 85 Plan of the al-Hajar Oasis Town at Bisya Area Site (after Orchard, Jeffery 2000, fig.4, 169)

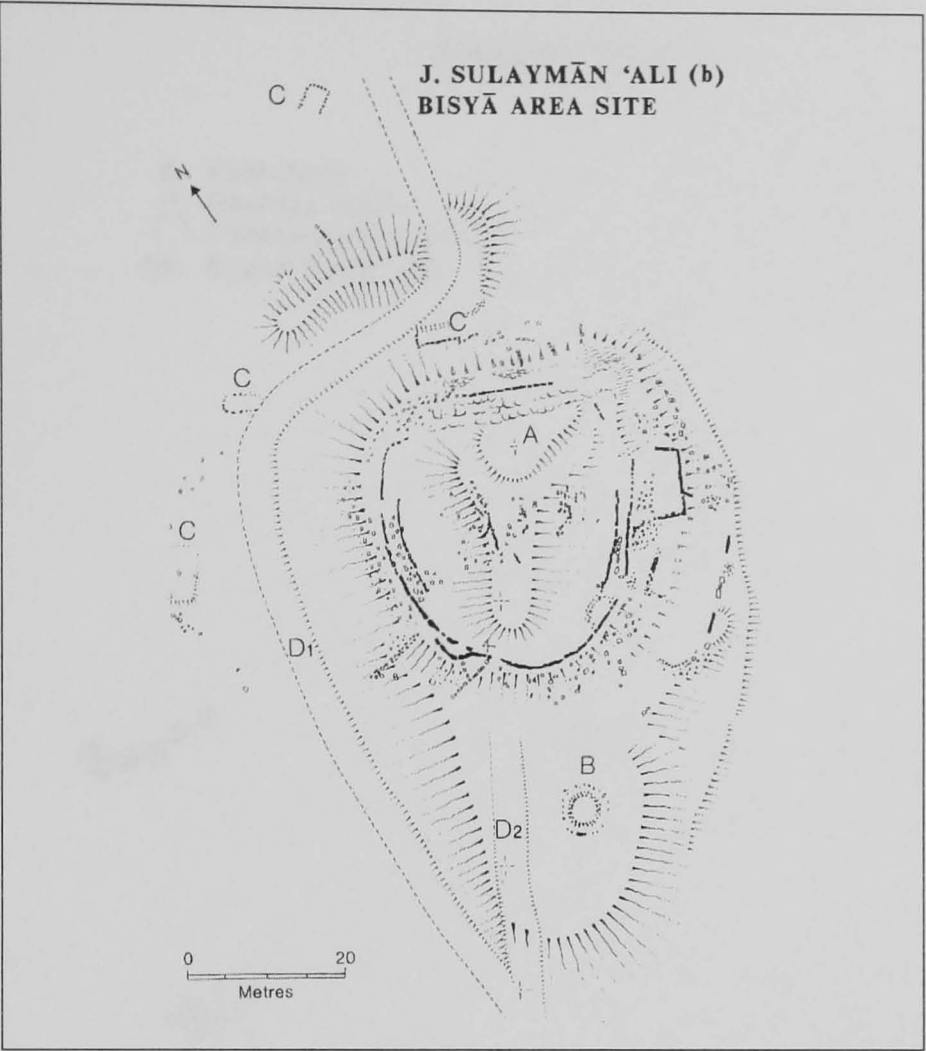


Figure 86 Plan of of Jabal Sulayman 'Ali b (after Orchard, Jocelyn & Stanger, G. 1994, fig.2, 66)

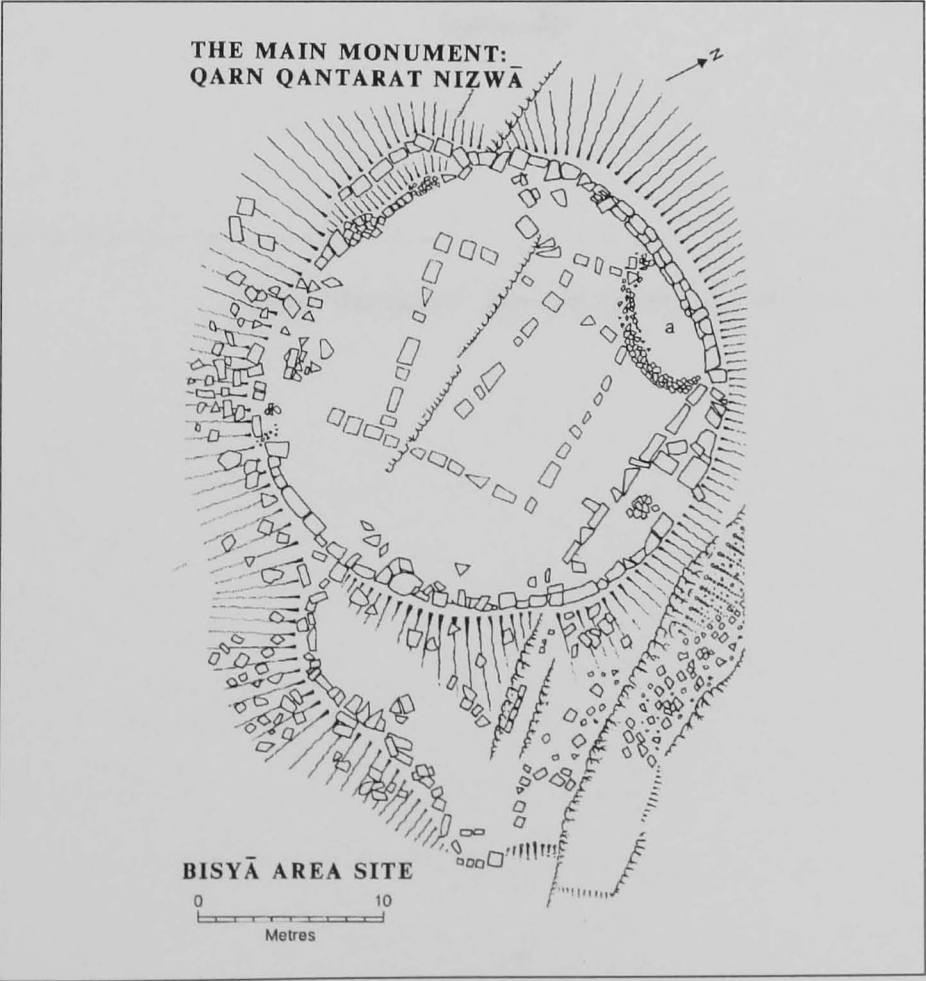


Figure 87 Plan of the tower on Qarn Qantarāt Nizwa (after Orchard, Jocelyn & Stanger, G. 1994, fig.7, 76)

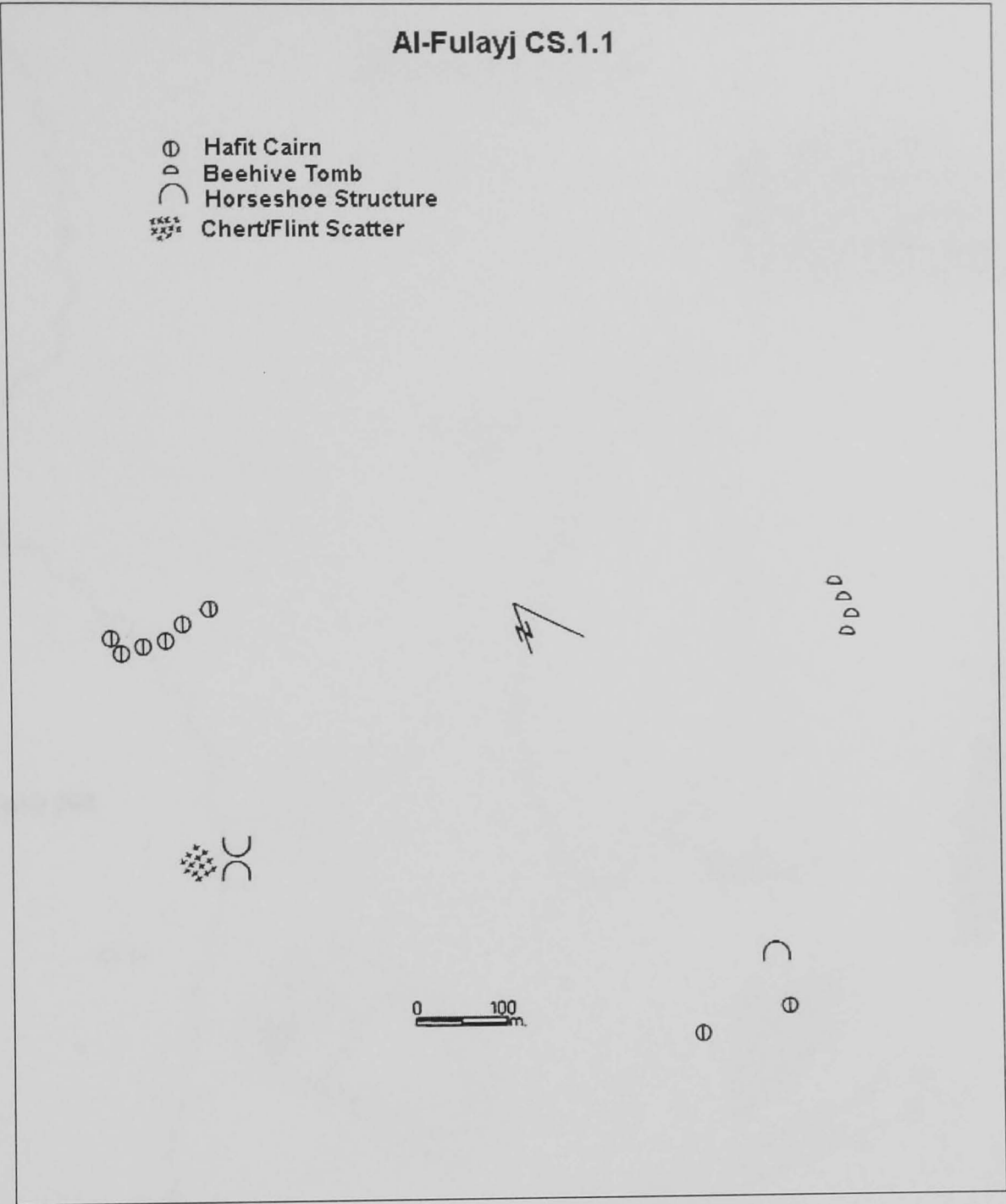


Figure 88 Sketch plan of al-Fulayj CS.1.1

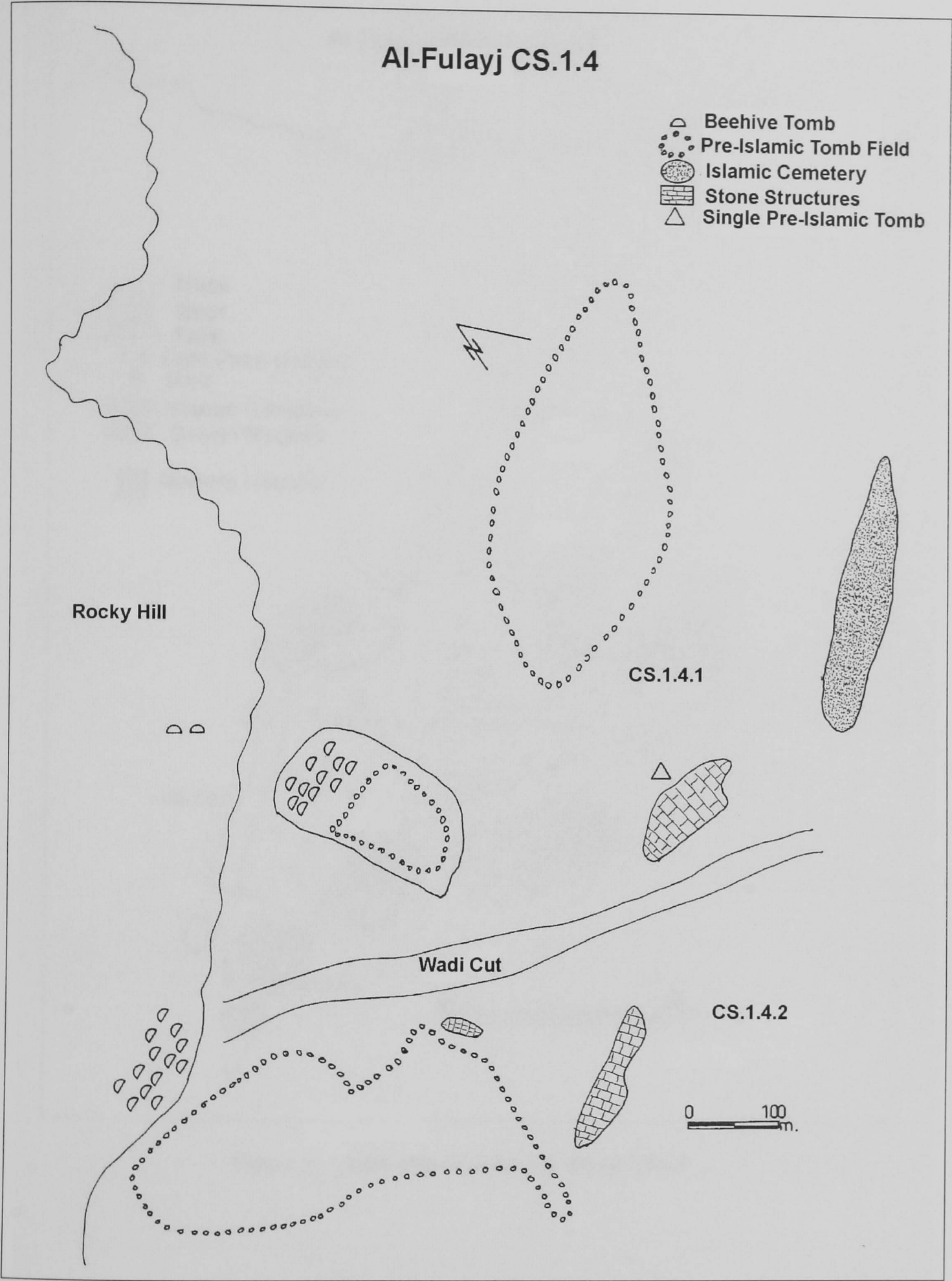


Figure 89 Sketch plan of site al-Fulayj CS.1.4

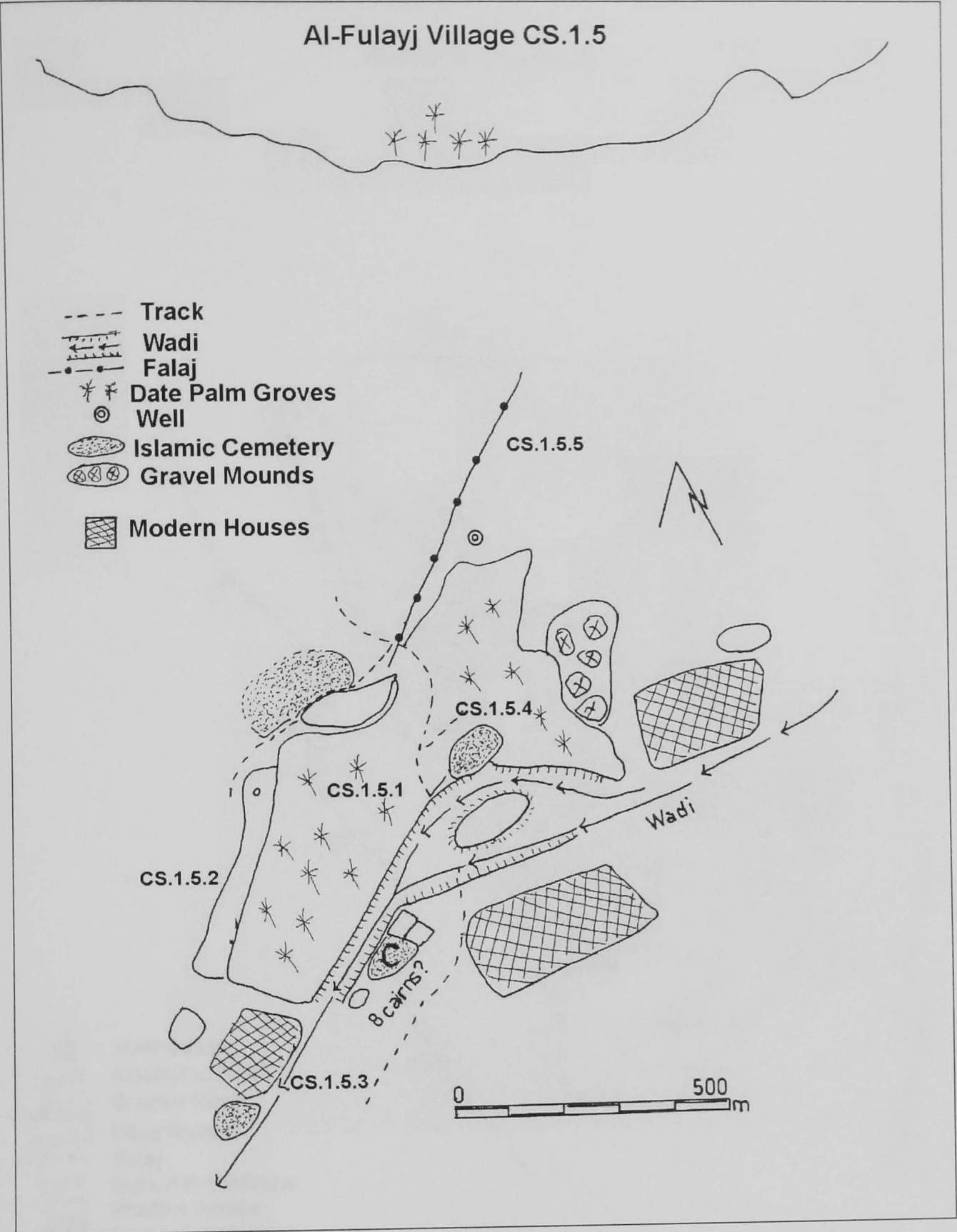


Figure 90 Sketch plan of al-Fulayj village CS.1.5

Al-Kurais Village CS.3.1

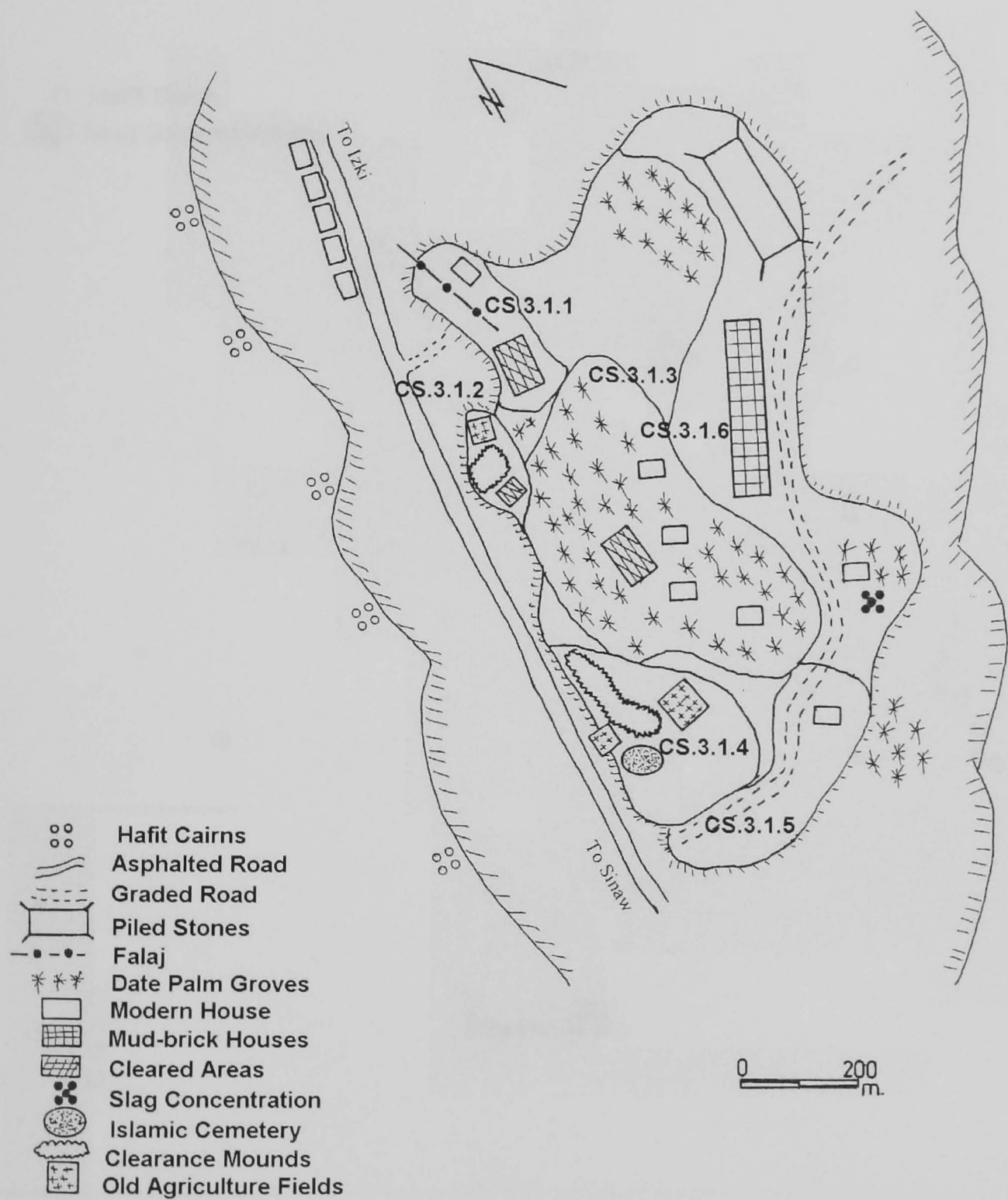


Figure 91 Sketch plan of al-Khuraish village CS.3.1

Al-Khuraish CS.3.8

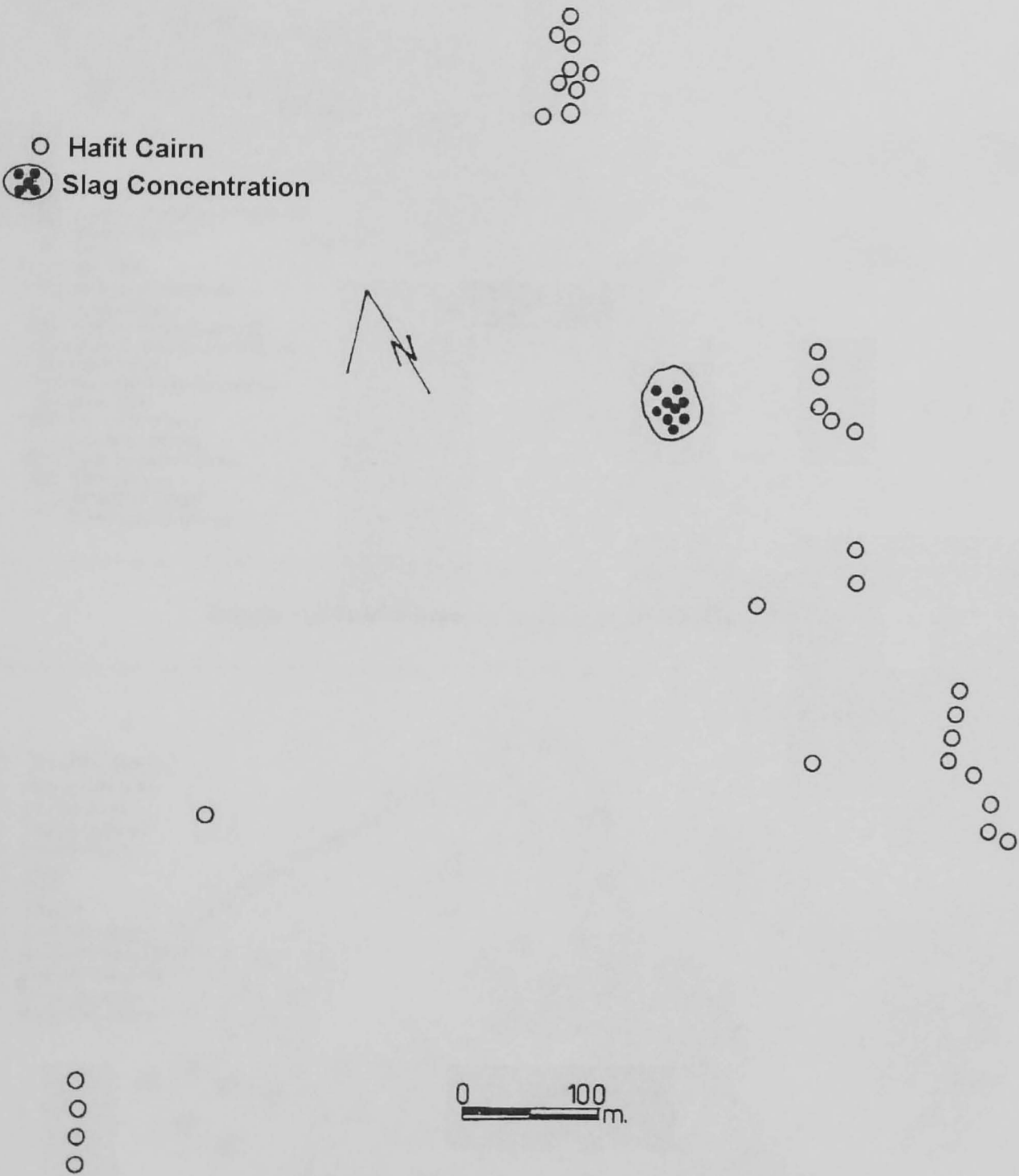


Figure 92 Sketch plan of al-Khuraish village CS.3.8

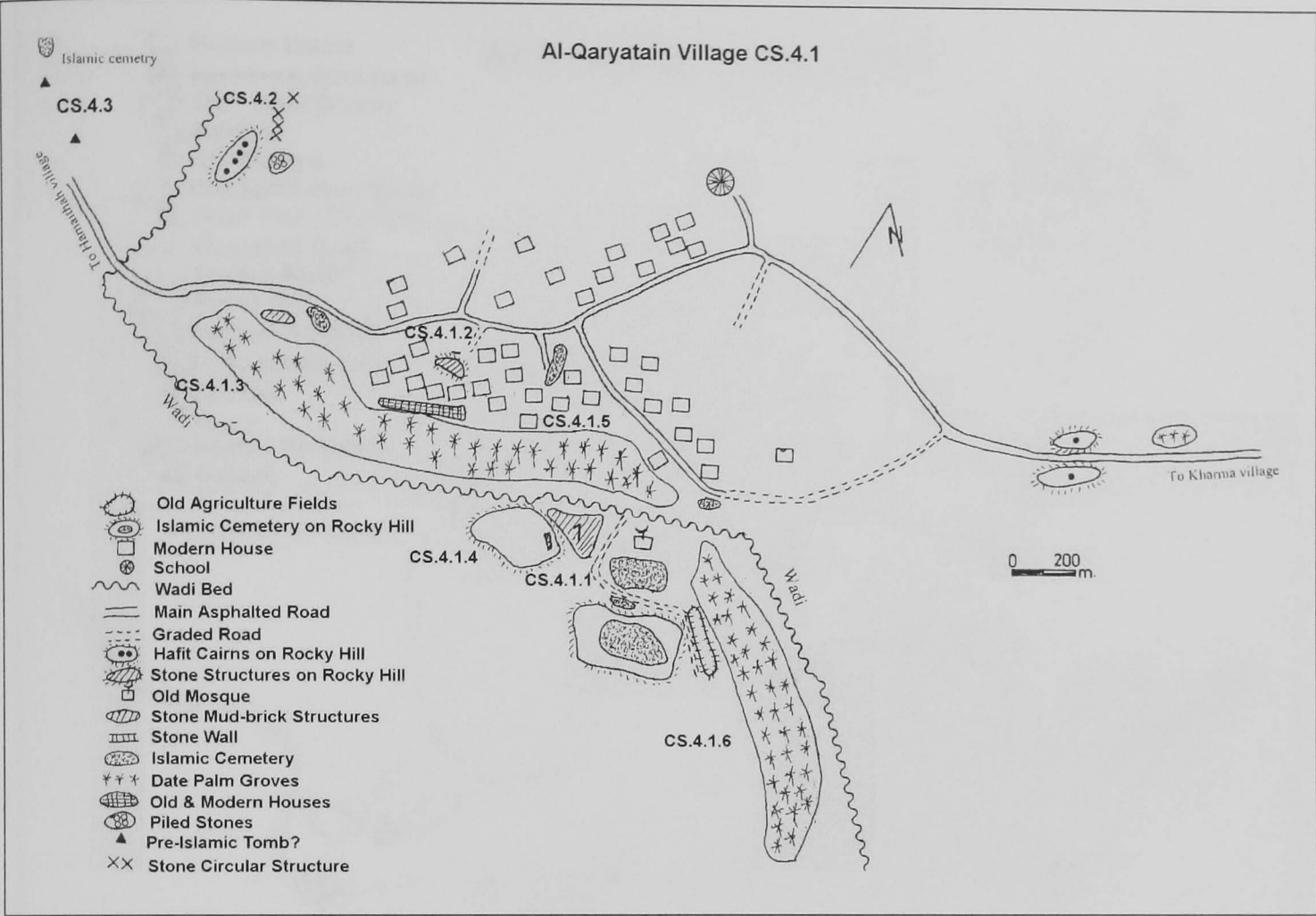


Figure 93 Sketch plan of al-Qaryatain village CS.4.1

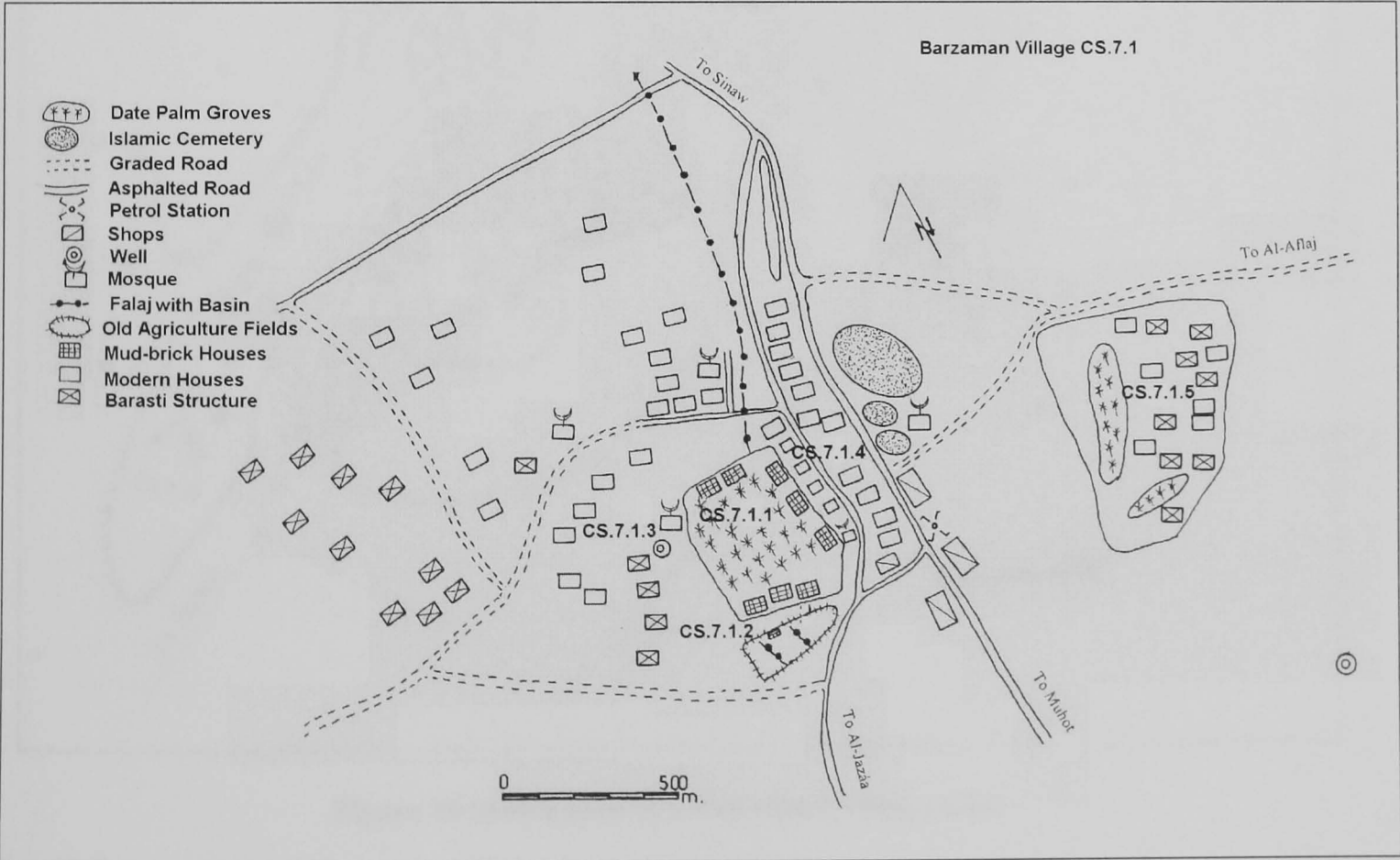


Figure 94 Sketch plan of Barzaman village CS.7.1

- Modern House
- Mud-brick Structures
- Date Palm Groves
- Mosque
- Old Mosque
- Old Agriculture Fields
- Dried Well (Thuqbah)
- Asphalted Road
- Graded Road
- Rocky Hill
- Football Playfield
- Ar Rawdhah Fort
- Old Fort
- Tower
- Islamic Cemetery
- School
- Falaj Remains
- Pre-Islamic Tomb?

Ar Rawdhah Village CS.9



Figure 95 Sketch plan of ar-Rawdhah village CS.9

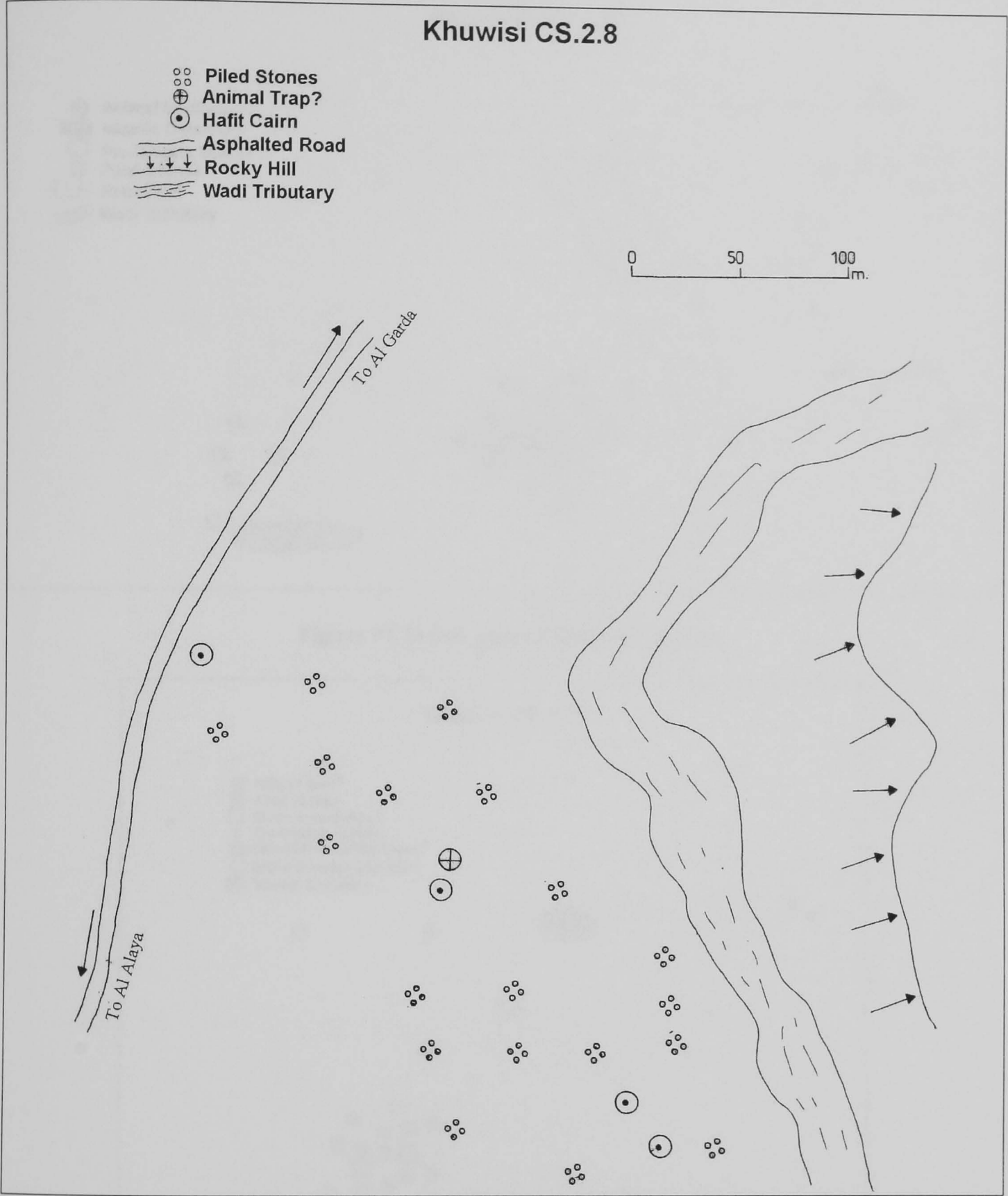


Figure 96 Sketch plan of Khuwisi CS.2.8

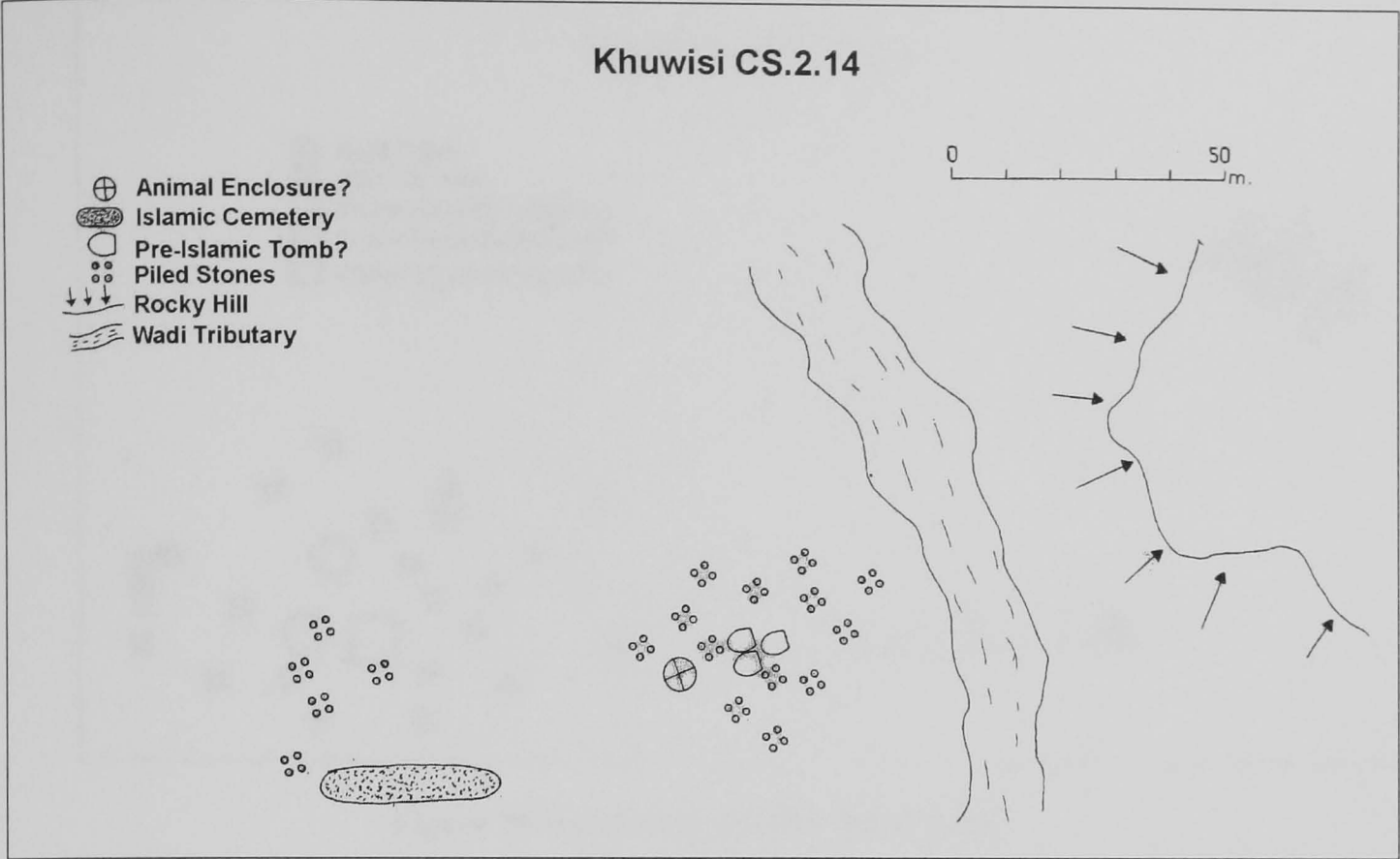


Figure 97 Sketch plan of Khuwisi CS.2.14

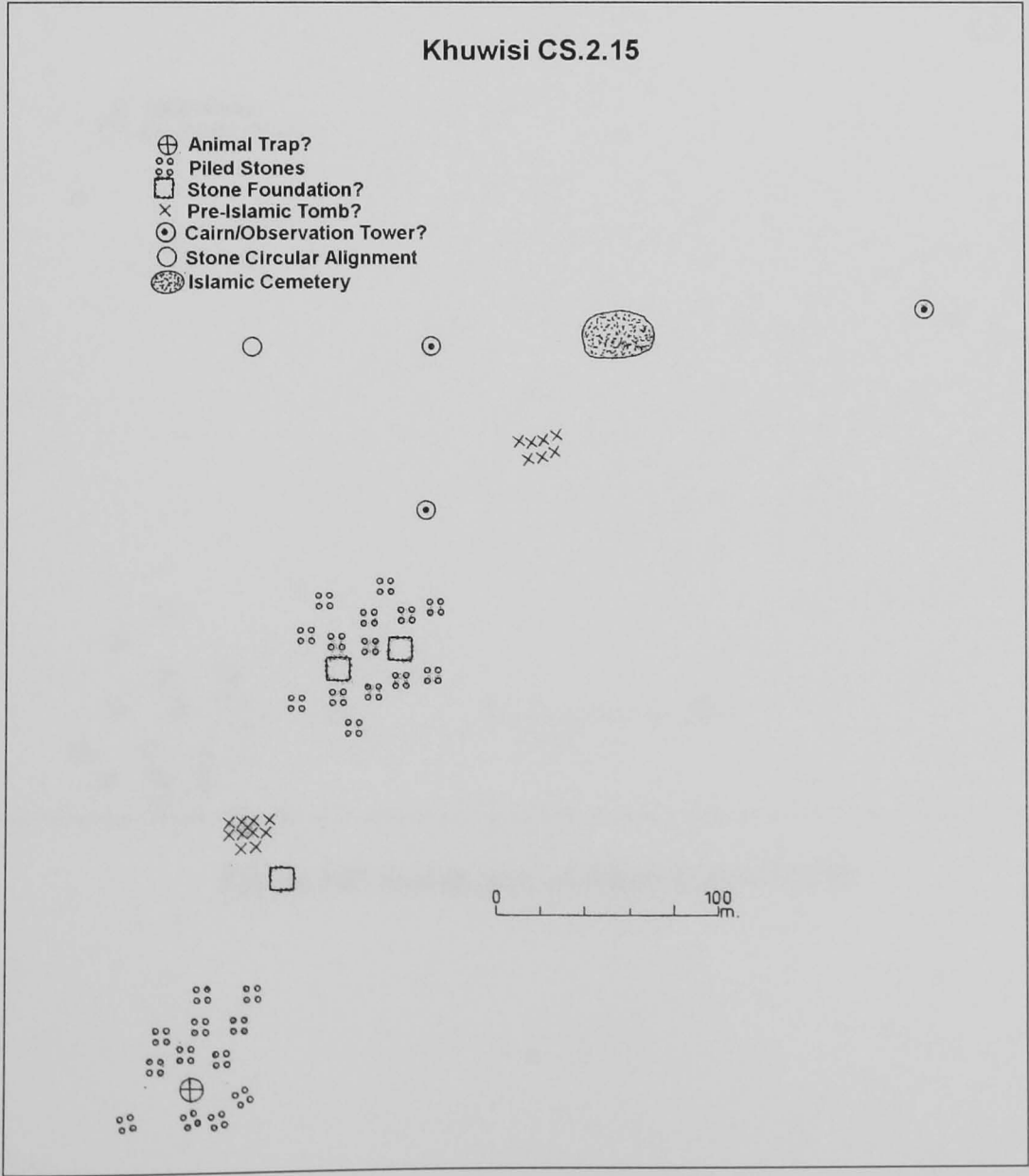


Figure 98 Sketch plan of Khuwisi CS.2.15

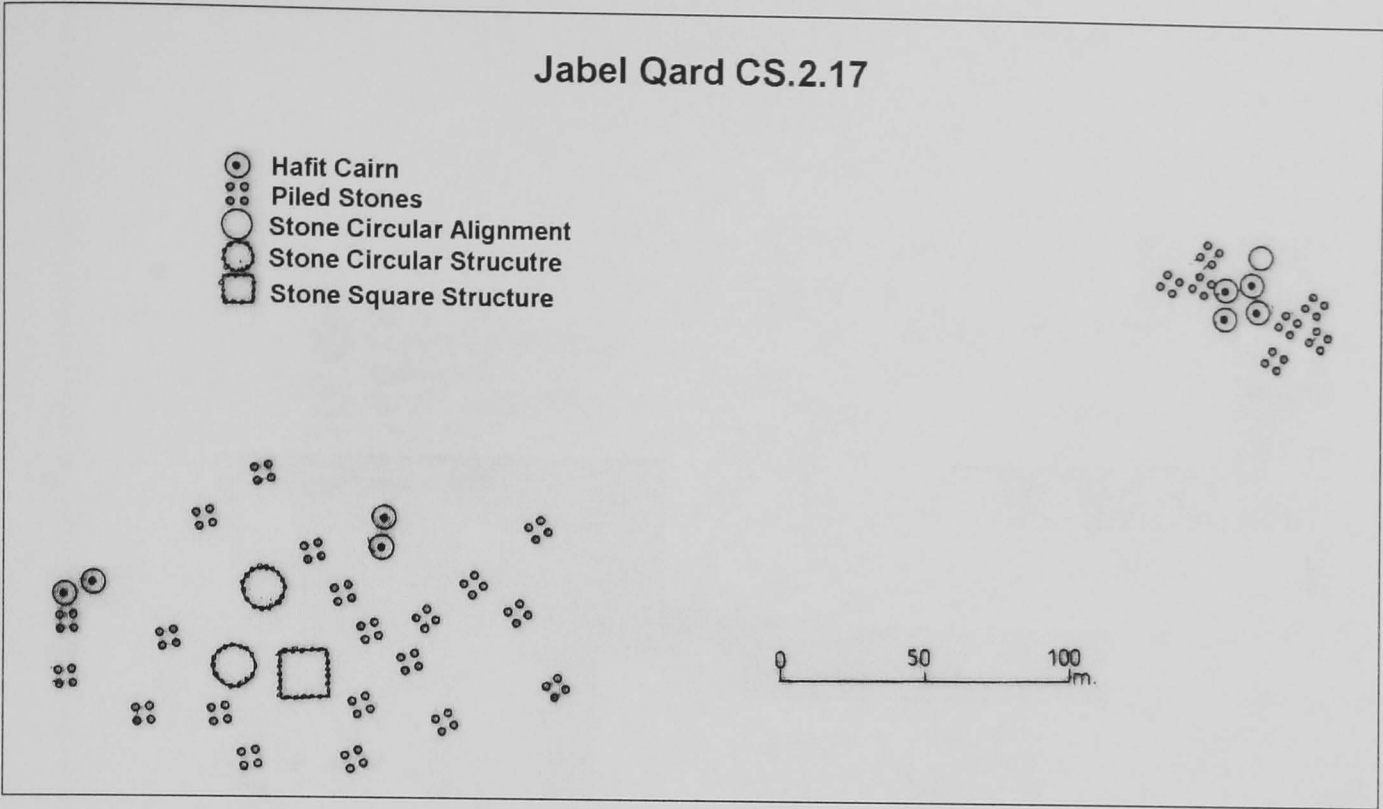


Figure 99 Sketch plan of Jabel Qard CS.2.17

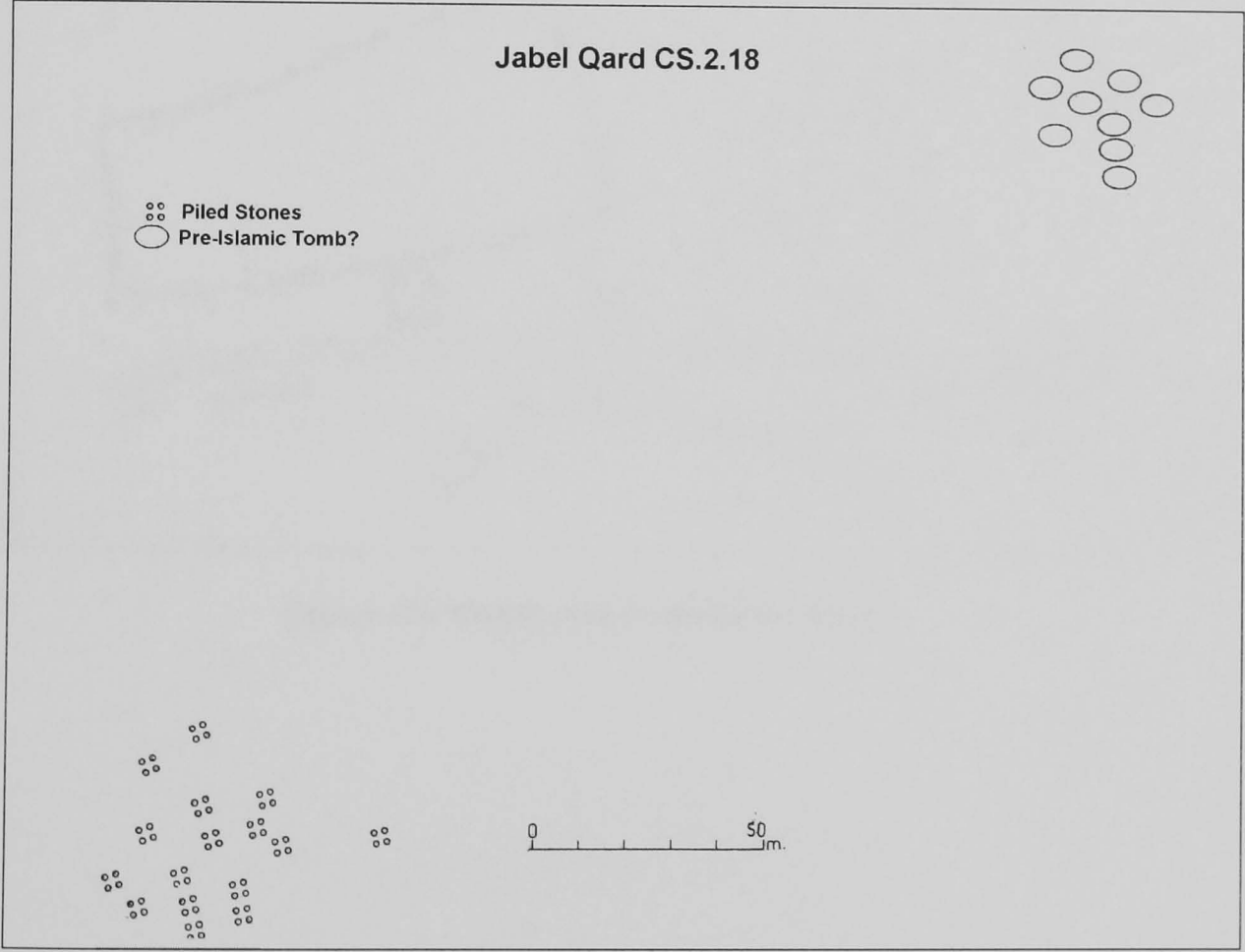


Figure 100 Sketch plan of Jabel Qard CS.2.18

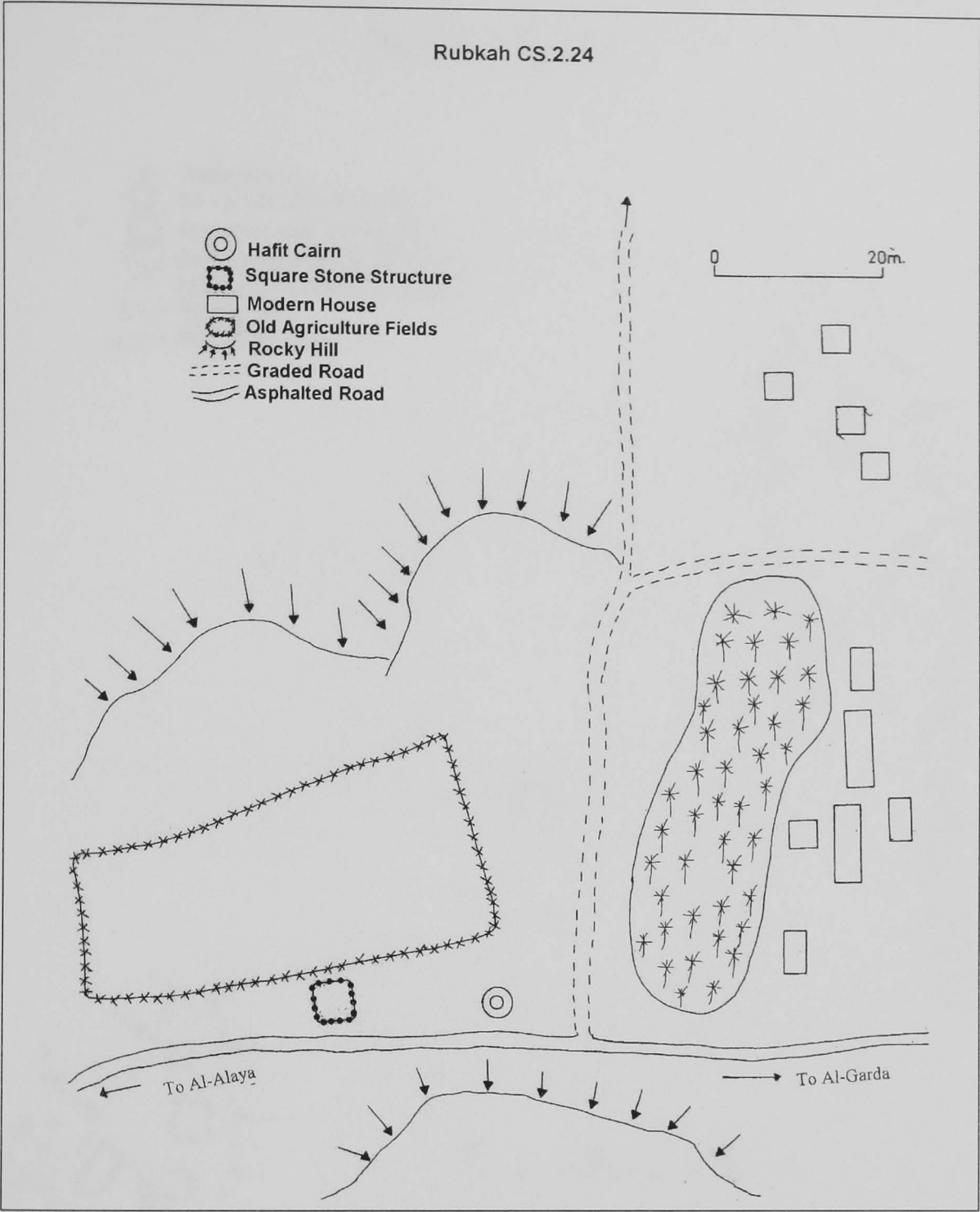


Figure 101 Sketch plan of Rubkah CS.2.24

Khuwisi CS.2.25

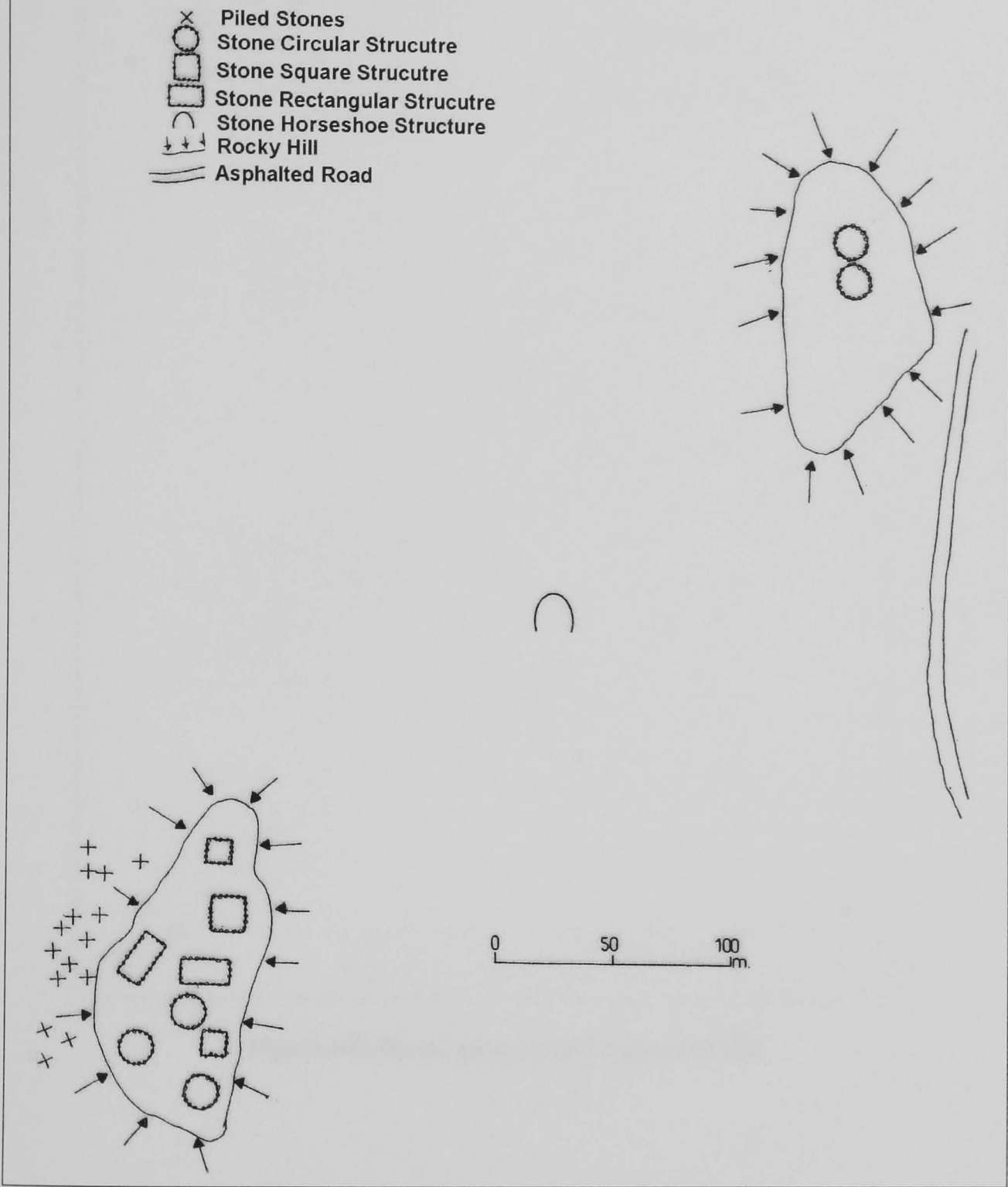


Figure 102 Sketch plan of Khuwisi CS.2.25

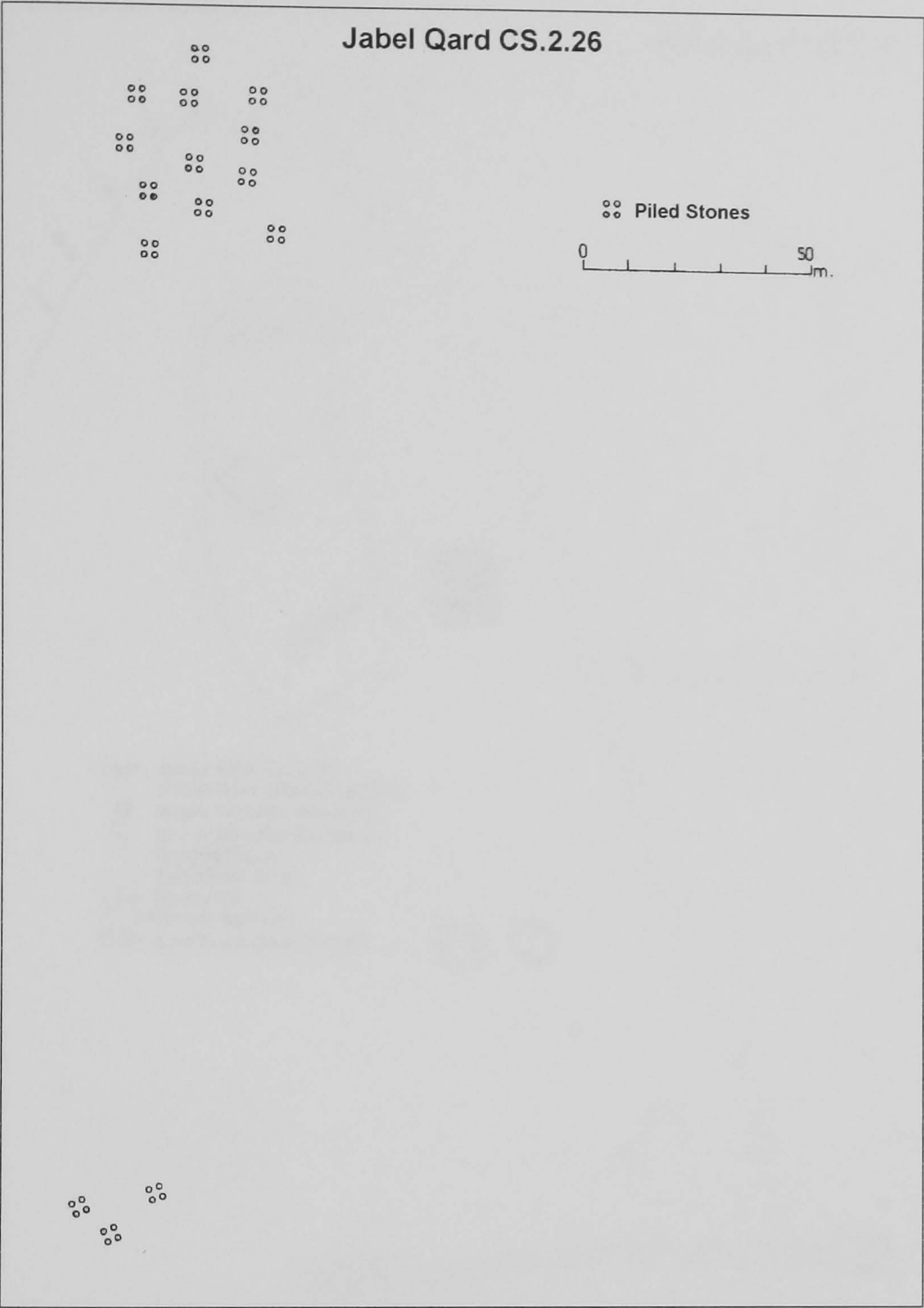


Figure 103 Sketch plan of Jabel Qard CS.2.26

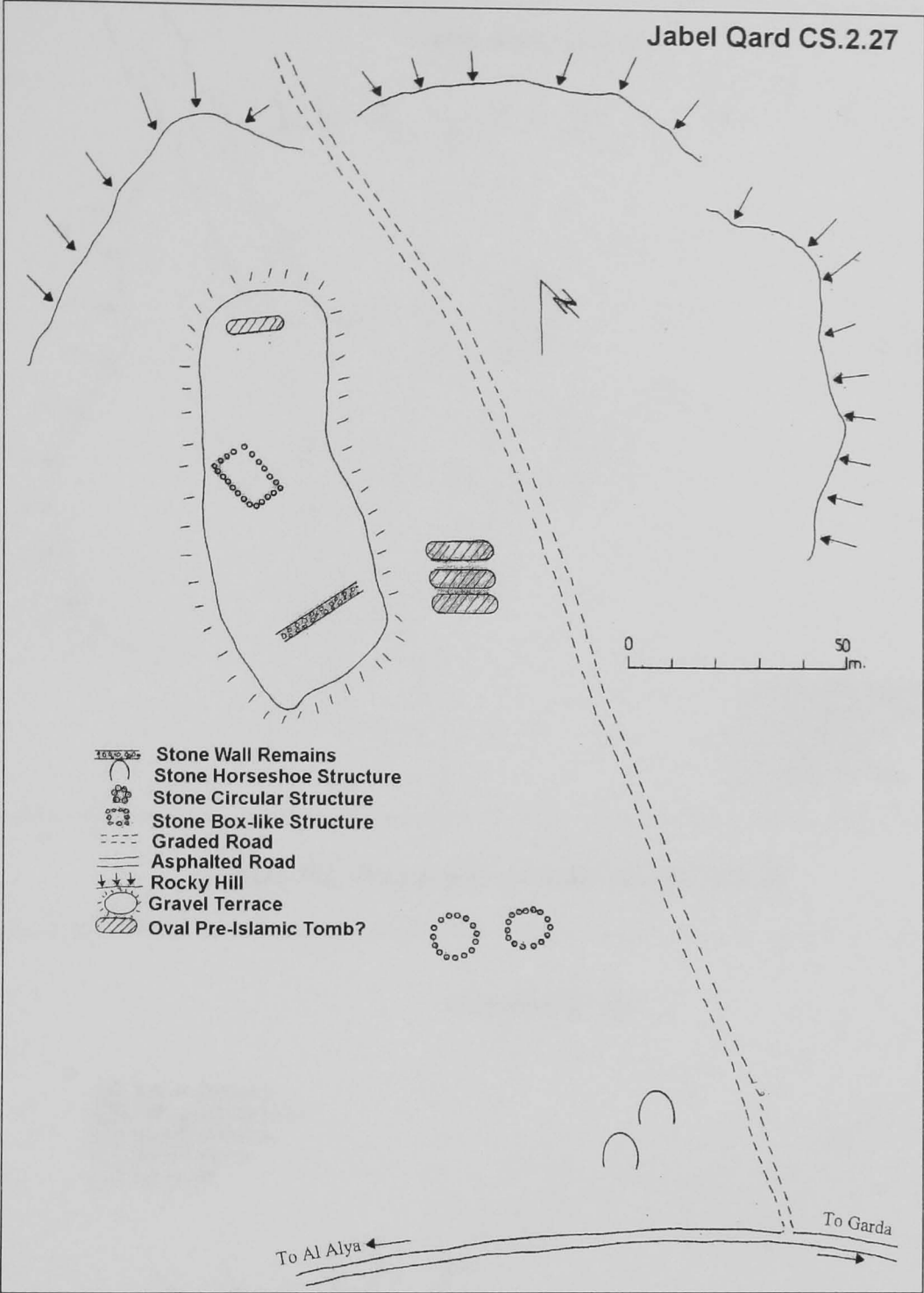


Figure 104 Sketch plan of Jabel Qard CS.2.27

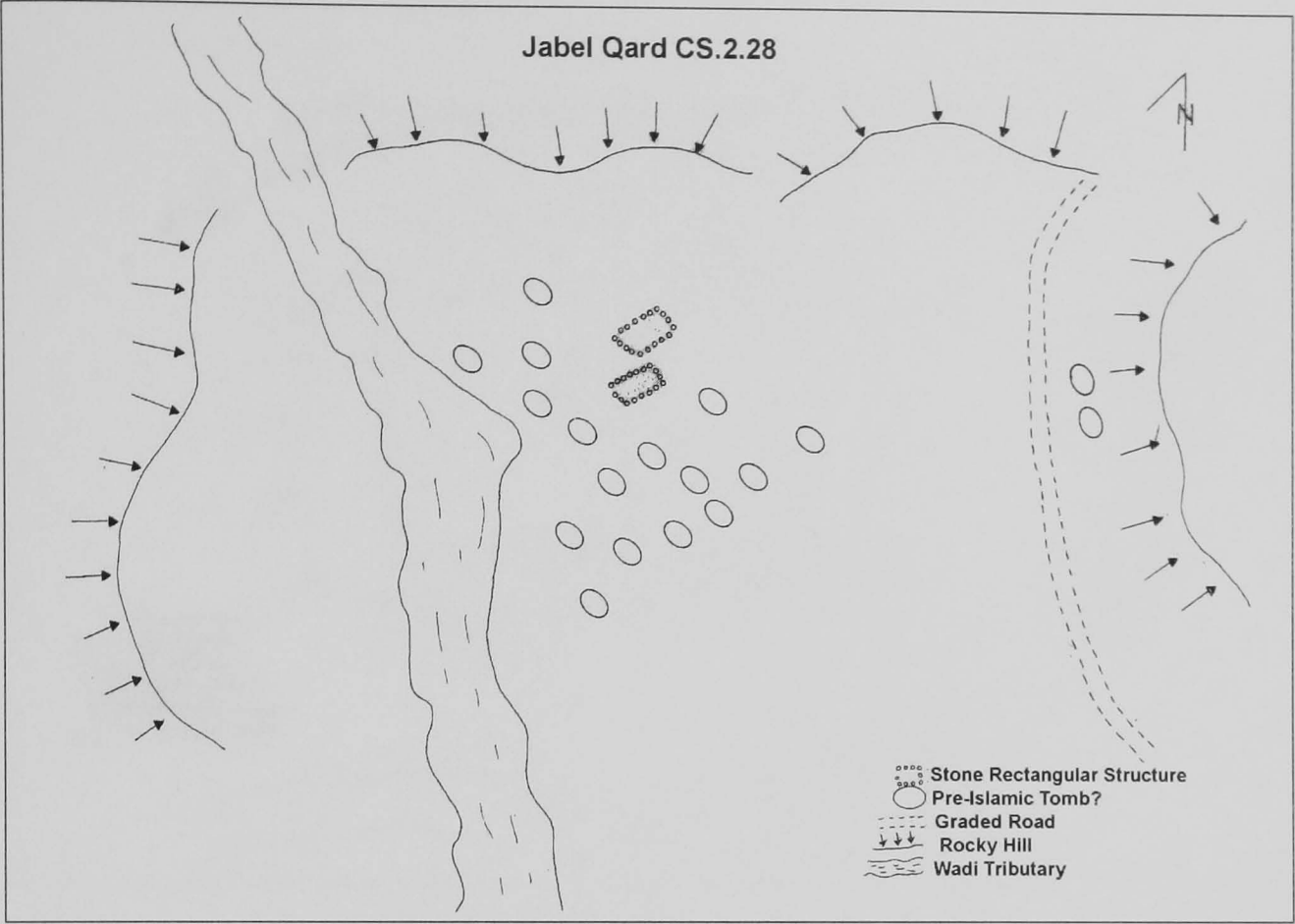


Figure 105 Sketch plan of Jabel Qard CS.2.28

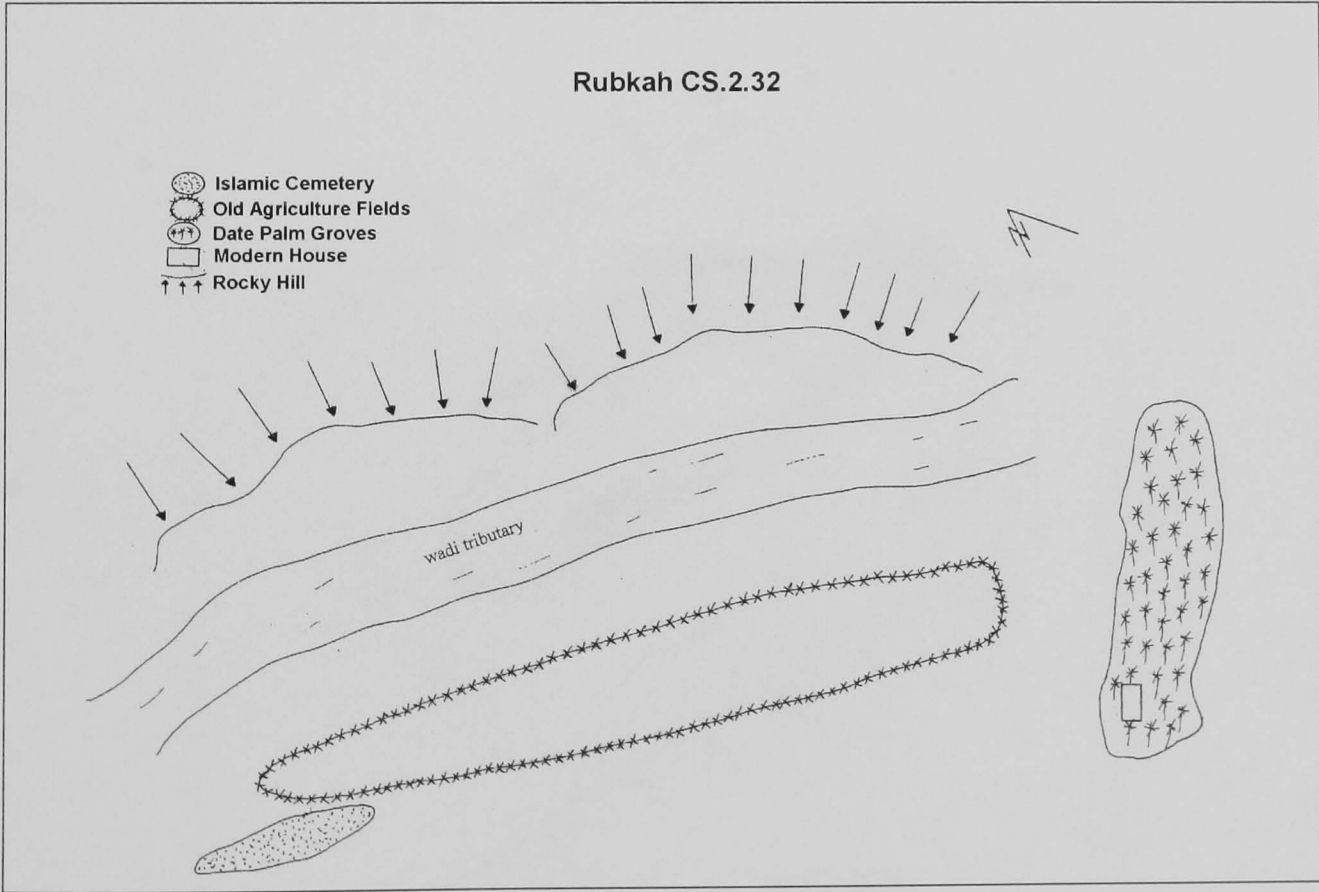


Figure 106 Sketch plan of Rubkah CS.2.32

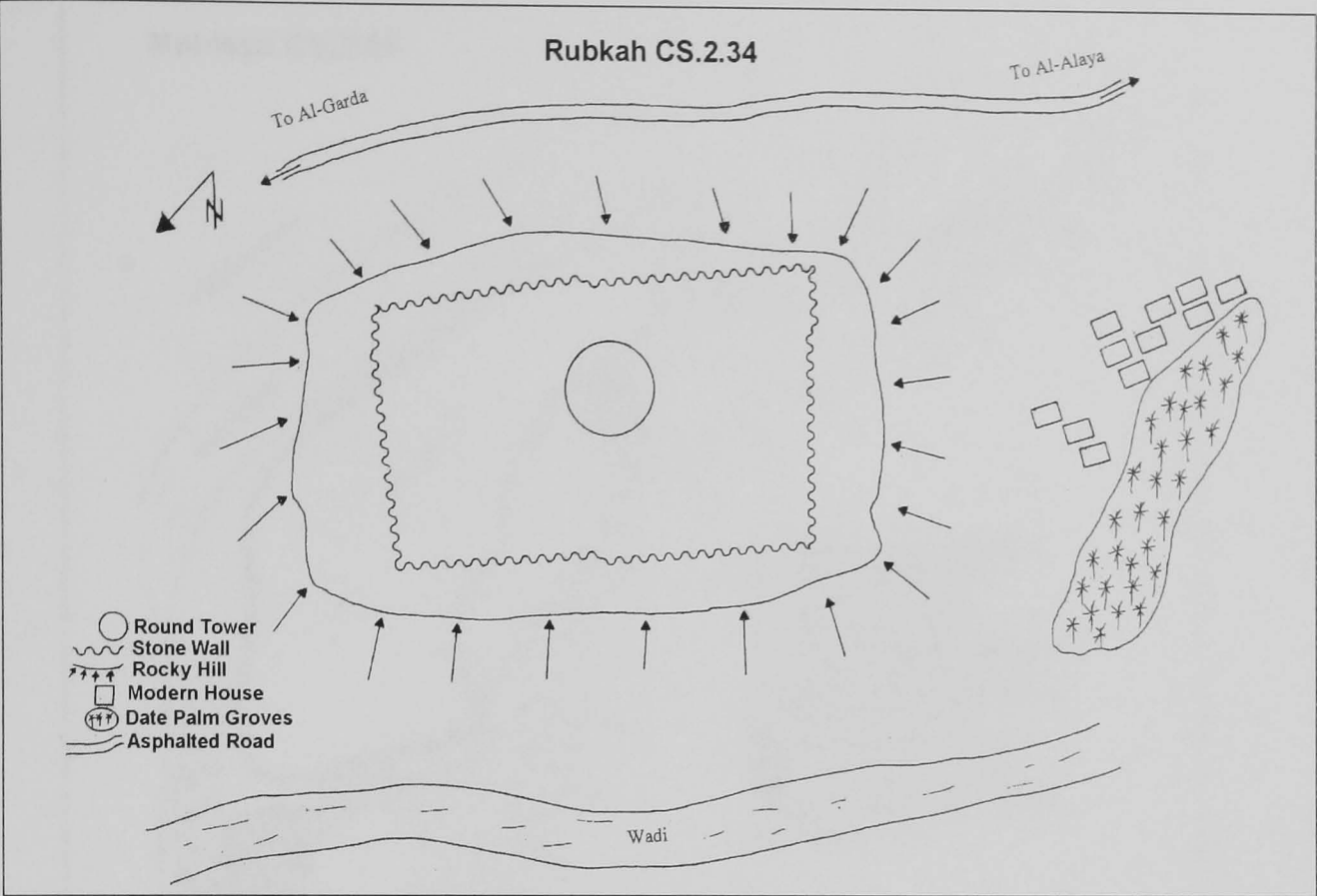


Figure 107 Sketch plan of Rubkah CS.2.34

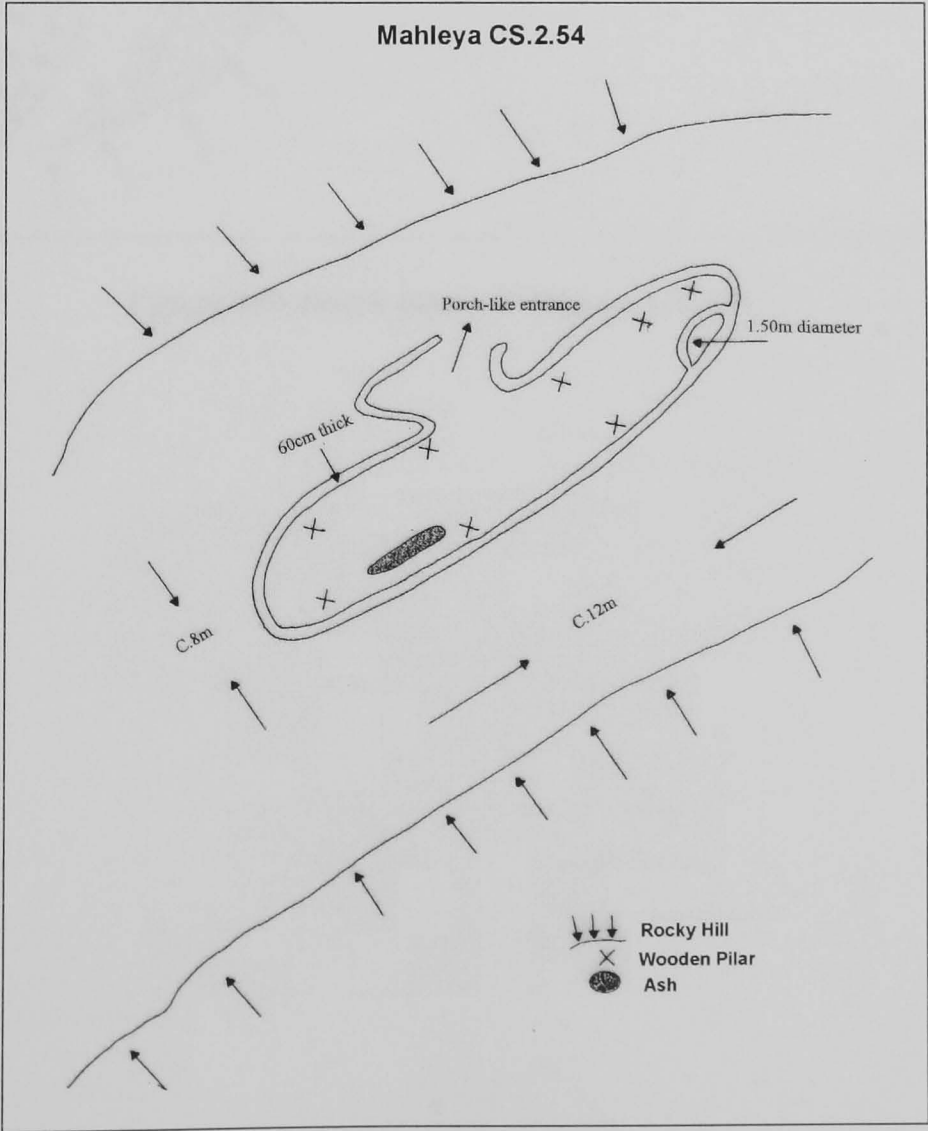


Figure 108 Sketch plan of Mahleya CS.2.54

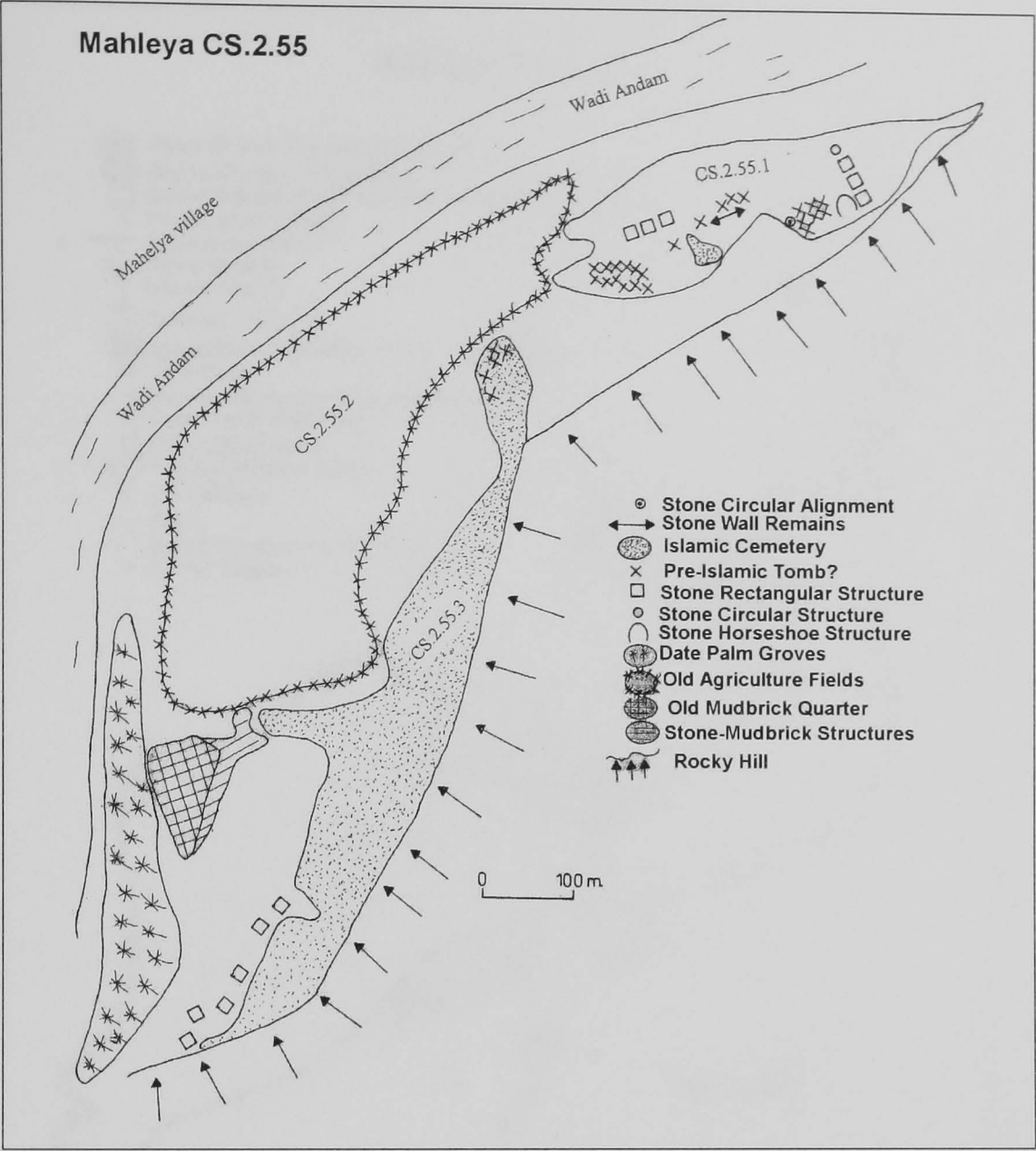


Figure 109 Sketch plan of Mahleya CS.2.55

Mahleya CS.2.62

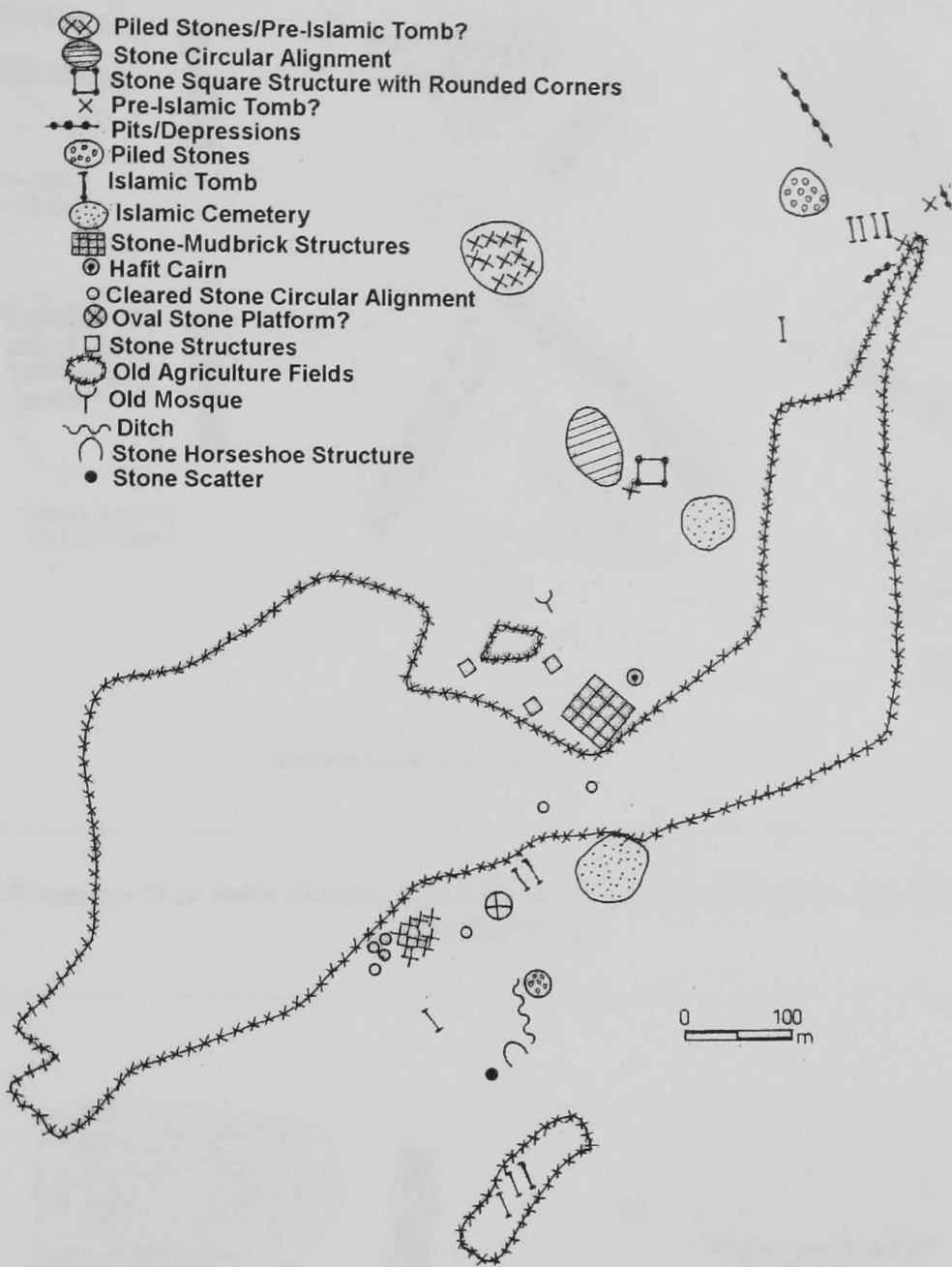


Figure 110 Sketch plan of Mahleya CS.2.62

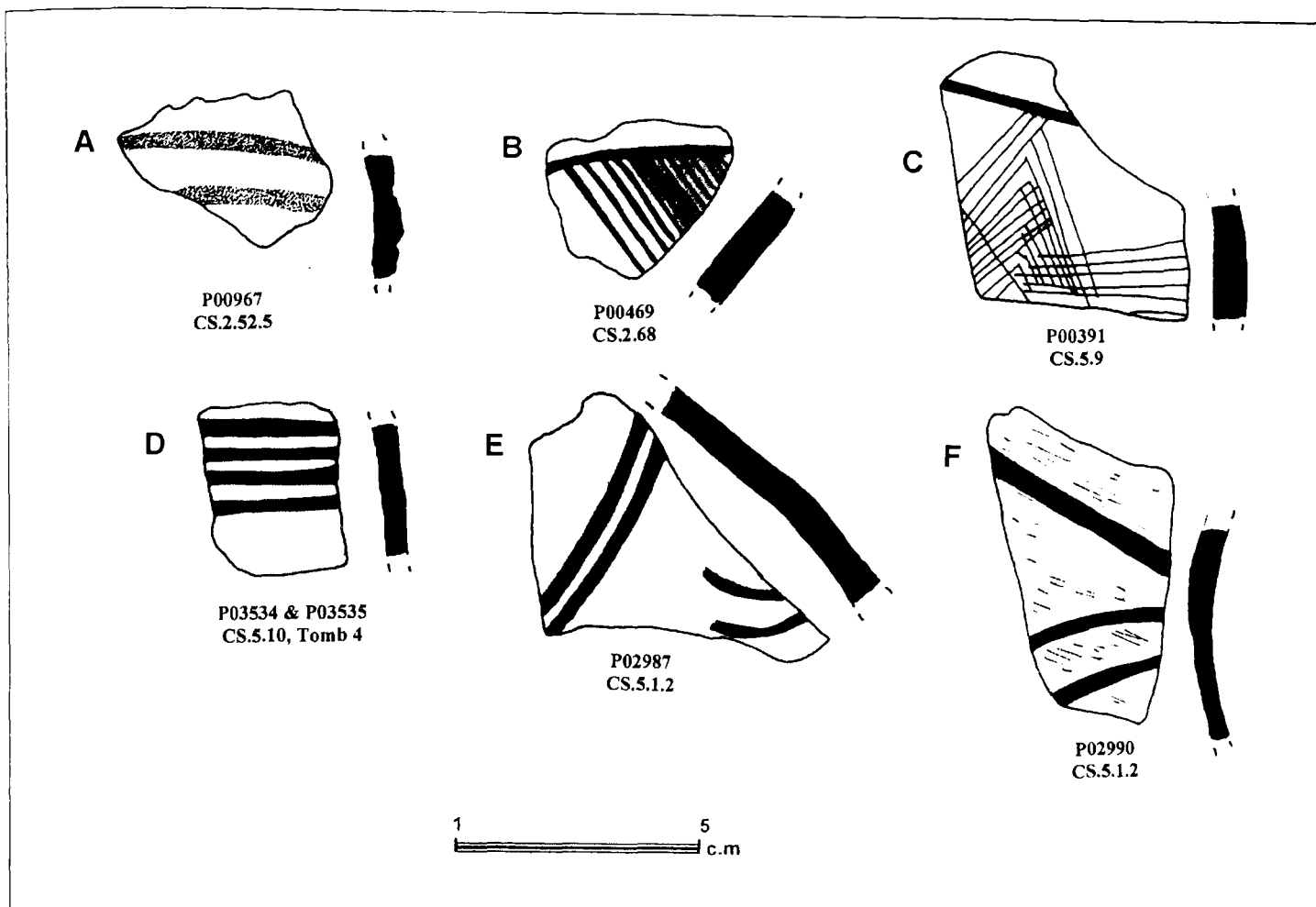


Figure 111 Umm an-Nar body sherds: UMHFRW (A), UMPGW (B, C, F), UMFRPW (D) & UMFBPW (E)

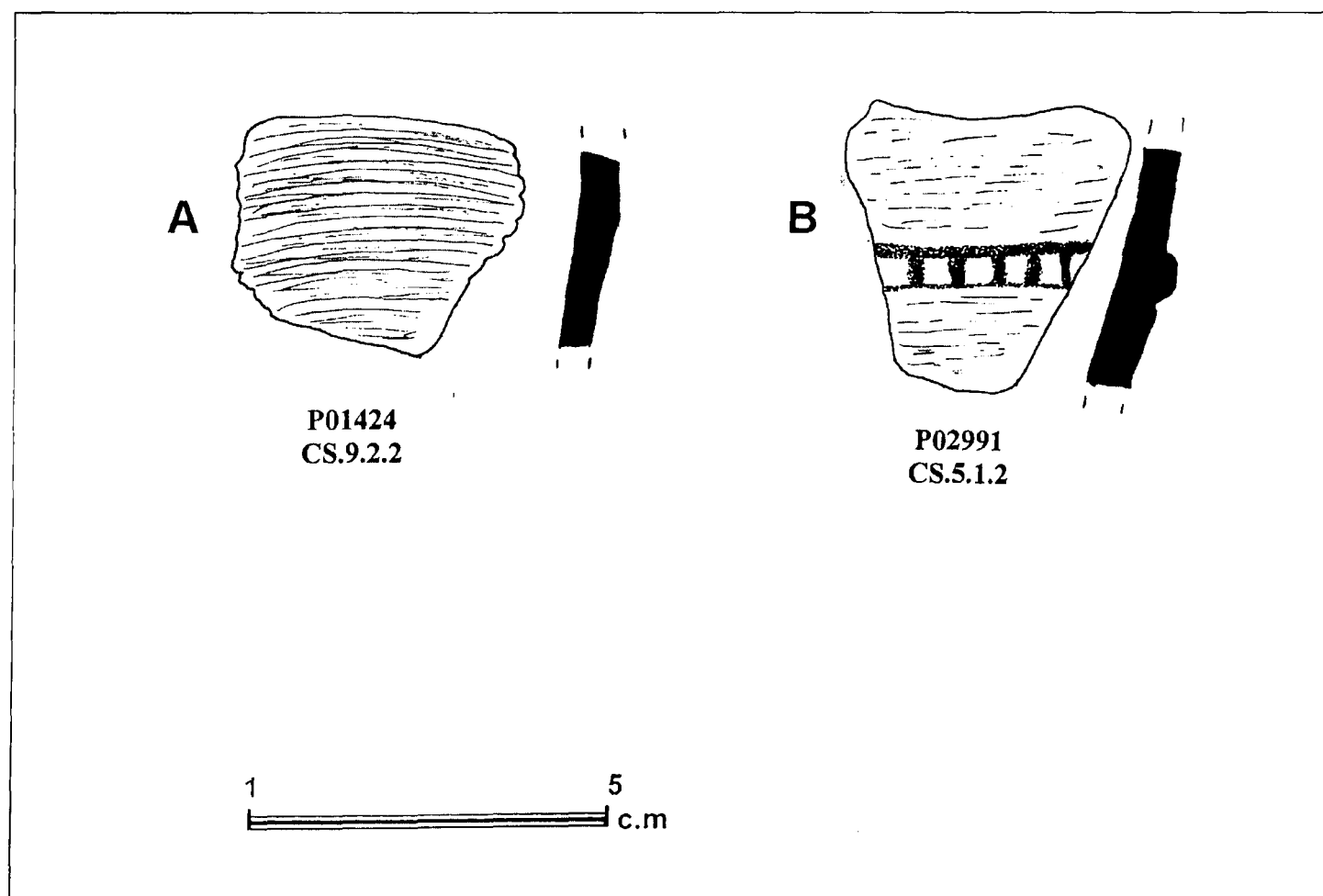


Figure 112 Umm an-Nar body sherds: UMC GW (A), UMPGW (B)

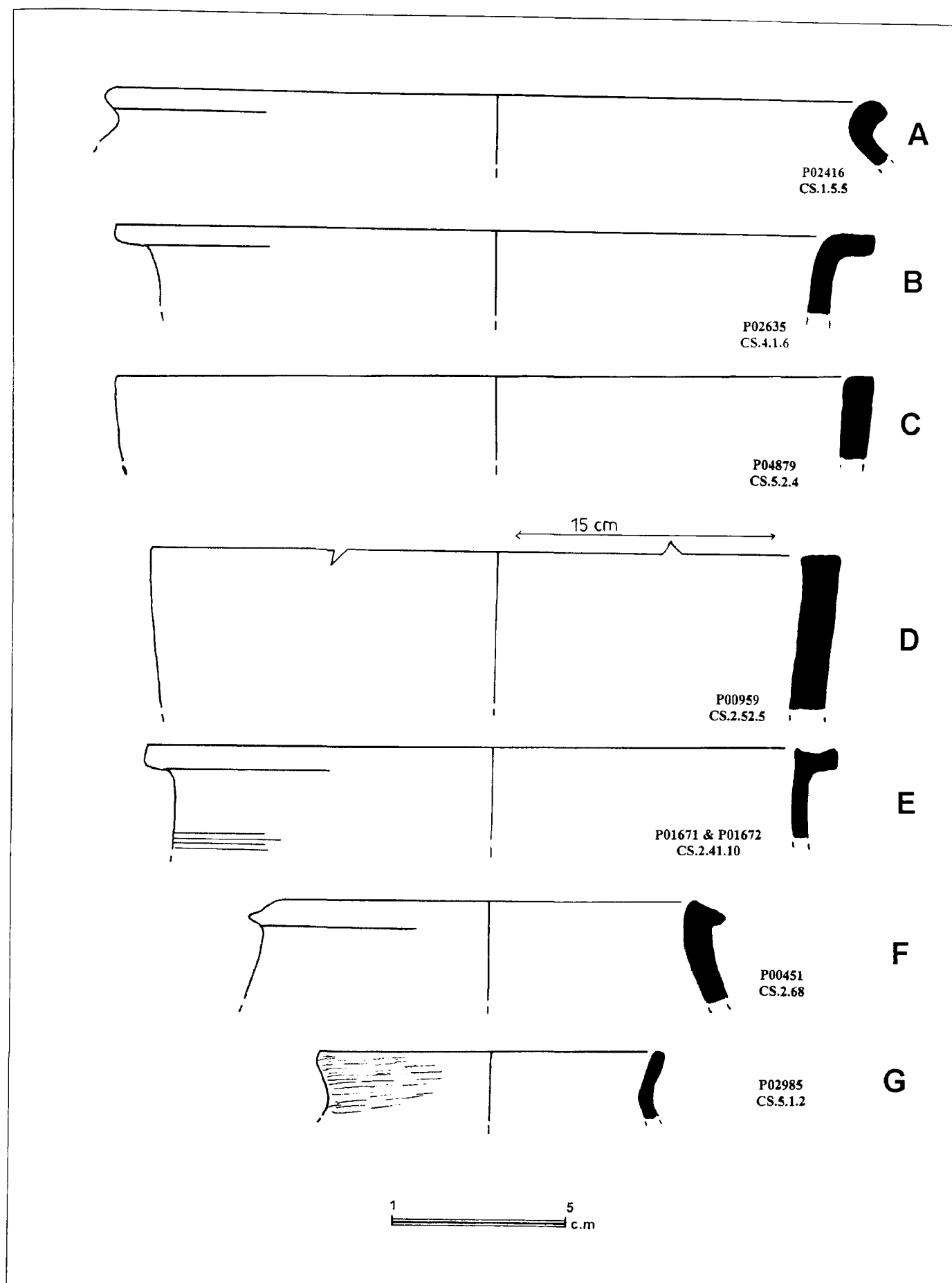


Figure 113 Umm an-Nar rim sherds: UMRYW (A, B), UMCW (C), UMFBPW (D, F, G) & UMVPBW (E)

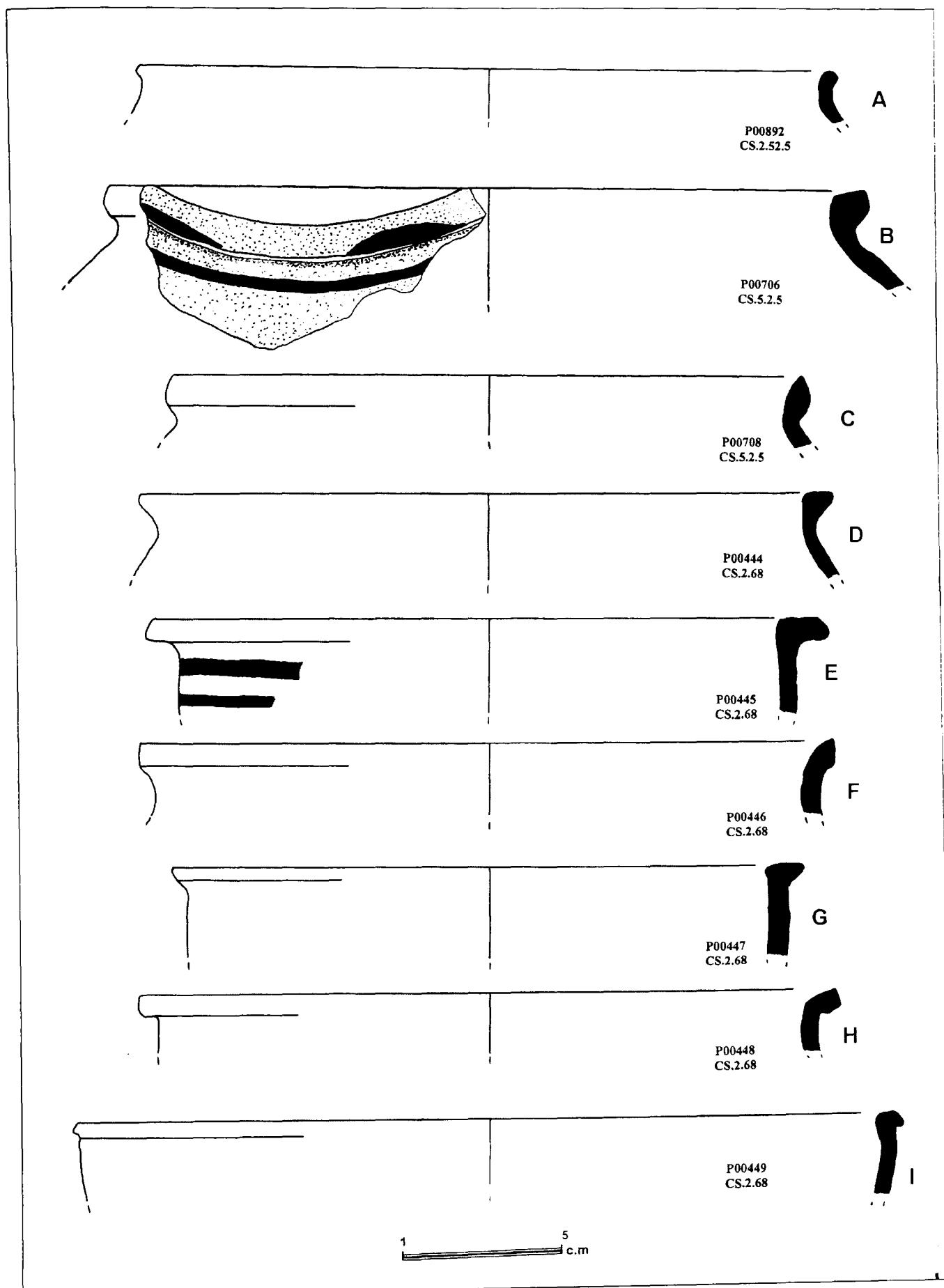


Figure 114 Umm an-Nar rim sherds: UMFRPW (A) & UMFBPW (B-I)

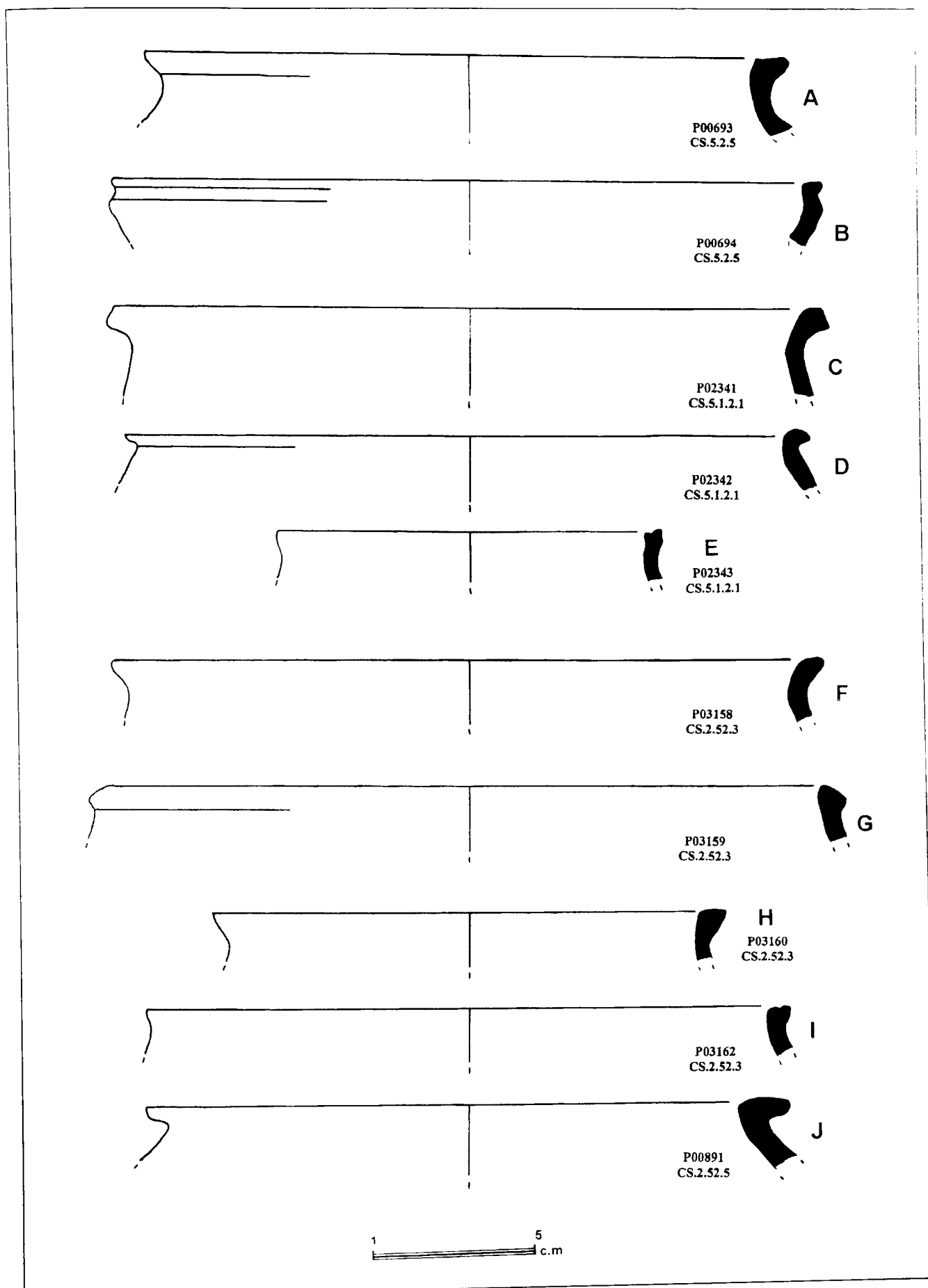


Figure 115 Umm an-Nar rim sherds: UMFRPW (A-E, J) & UMFBPW (F-I)

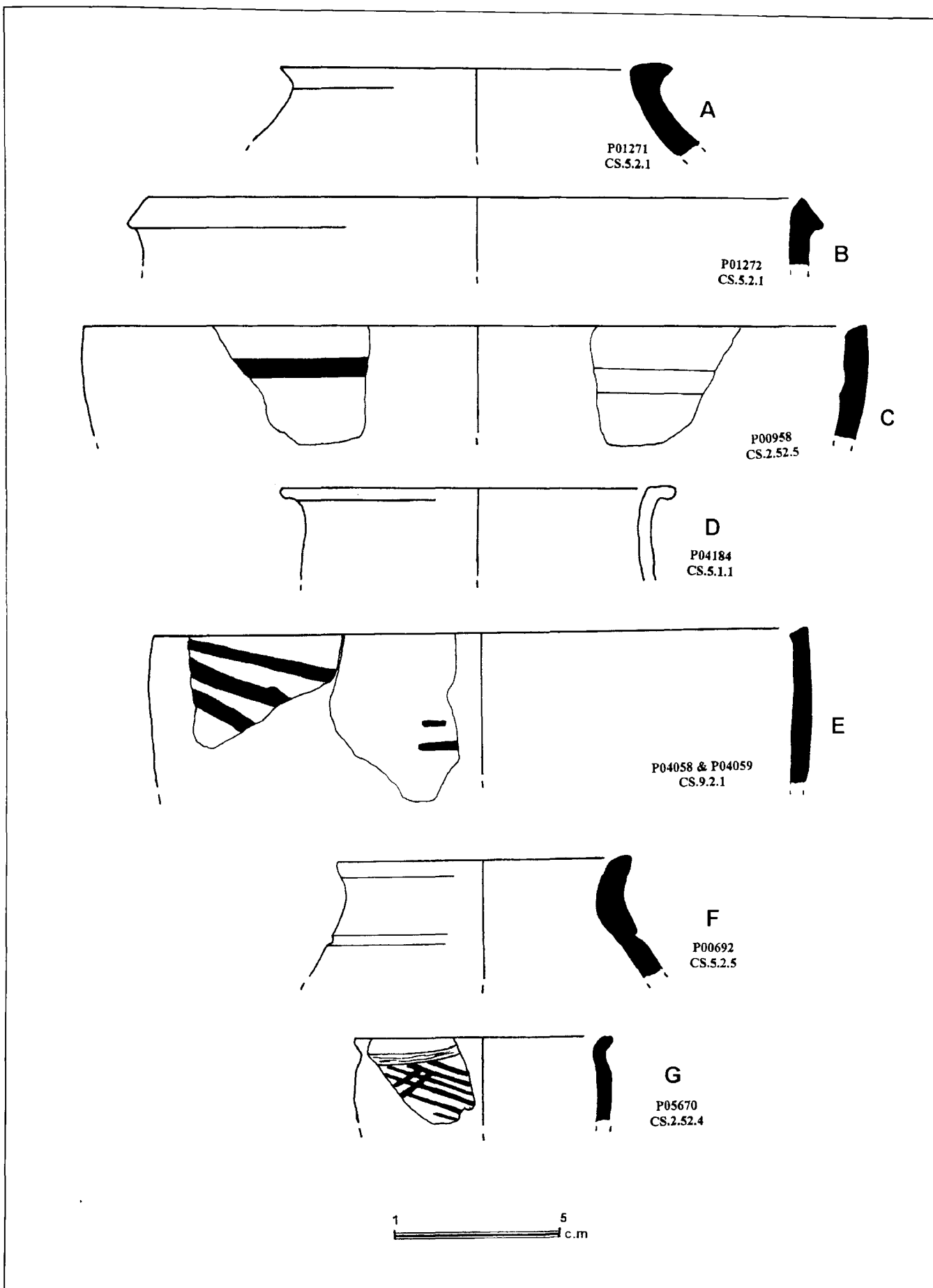


Figure 116 Umm an-Nar rim sherds: UMFRPW (A-G)

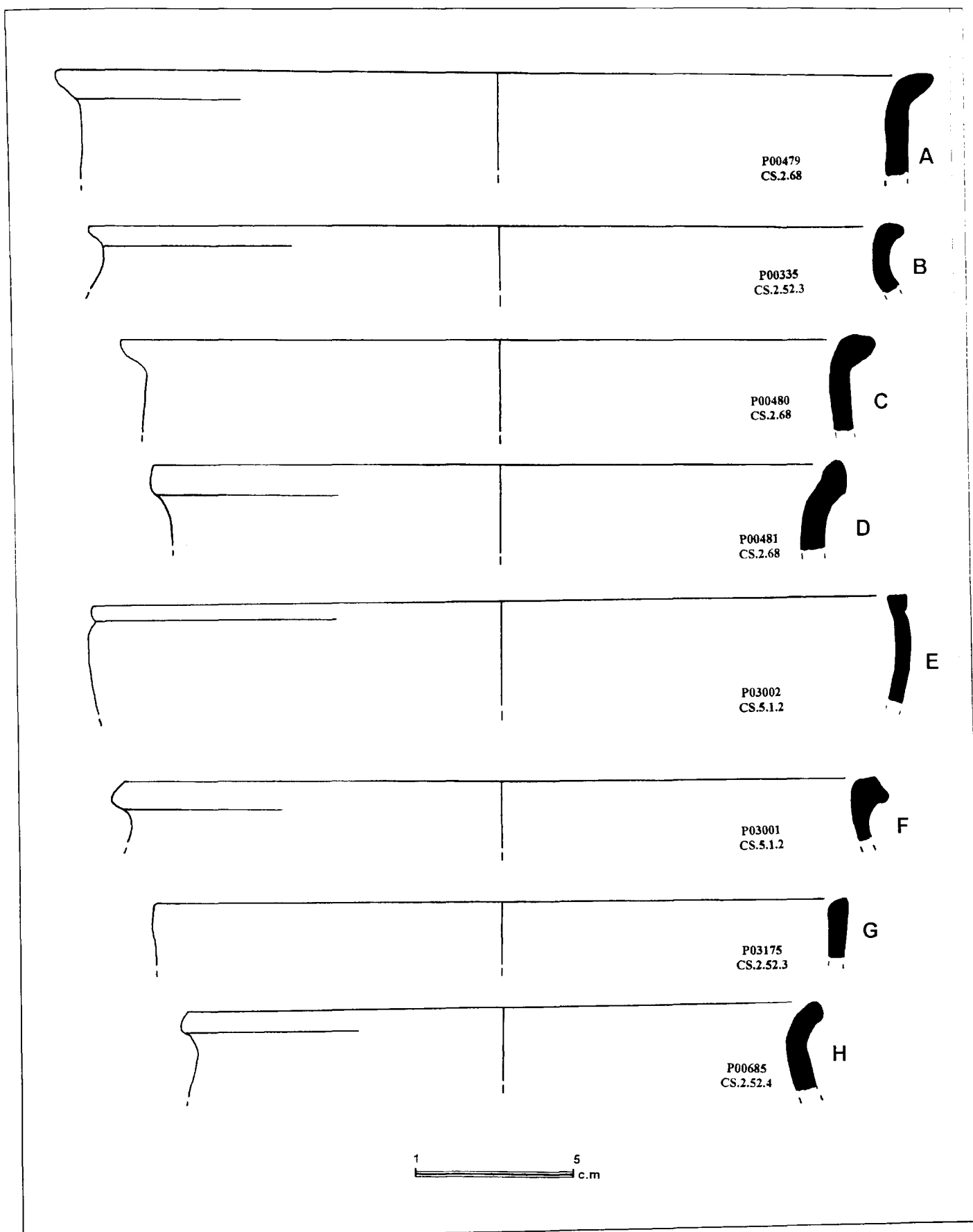


Figure 117 Umm an-Nar rim sherds: UMYRW (A-H)

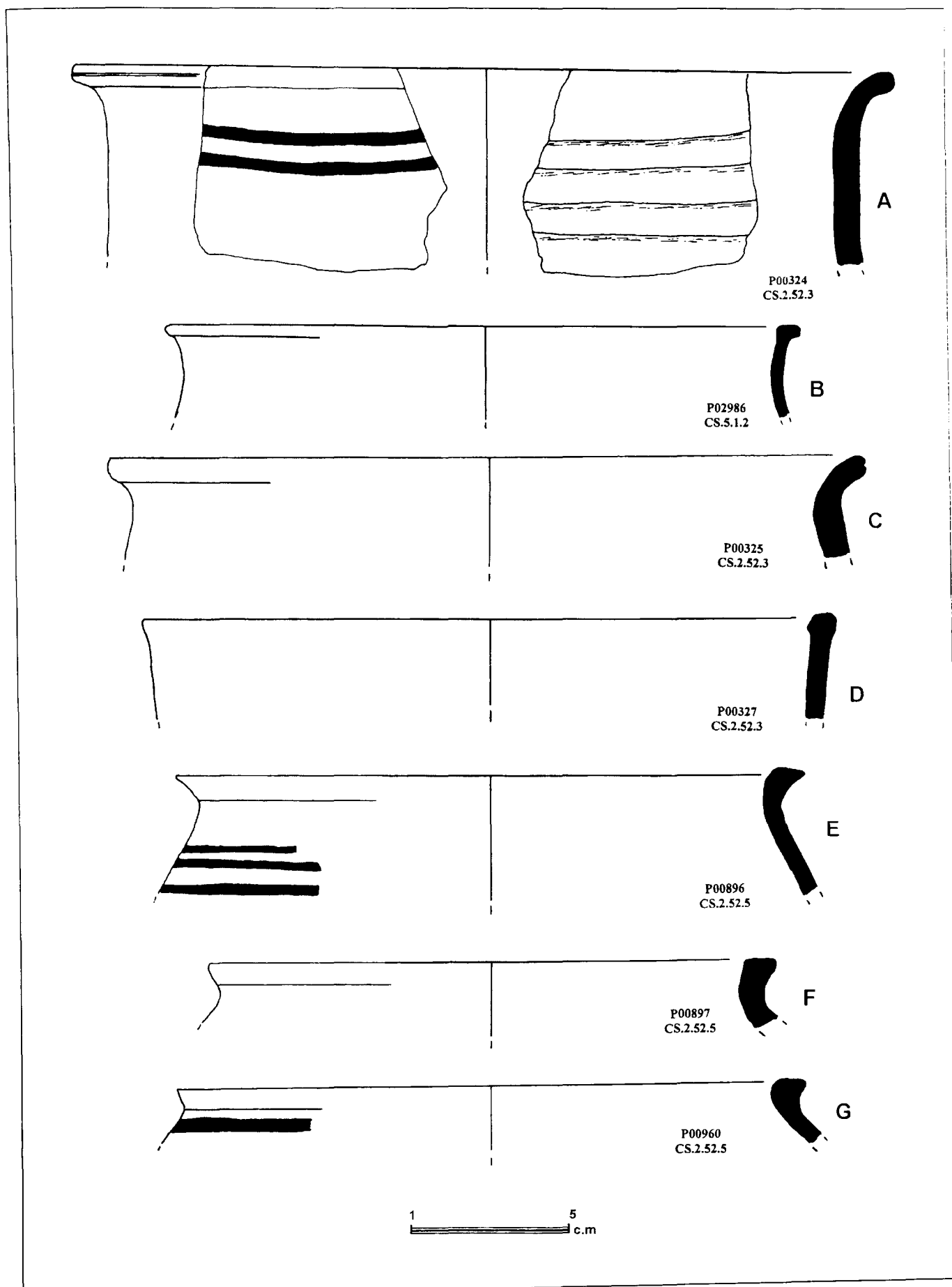


Figure 118 Umm an-Nar rim sherds: UMFBPW (A-G)

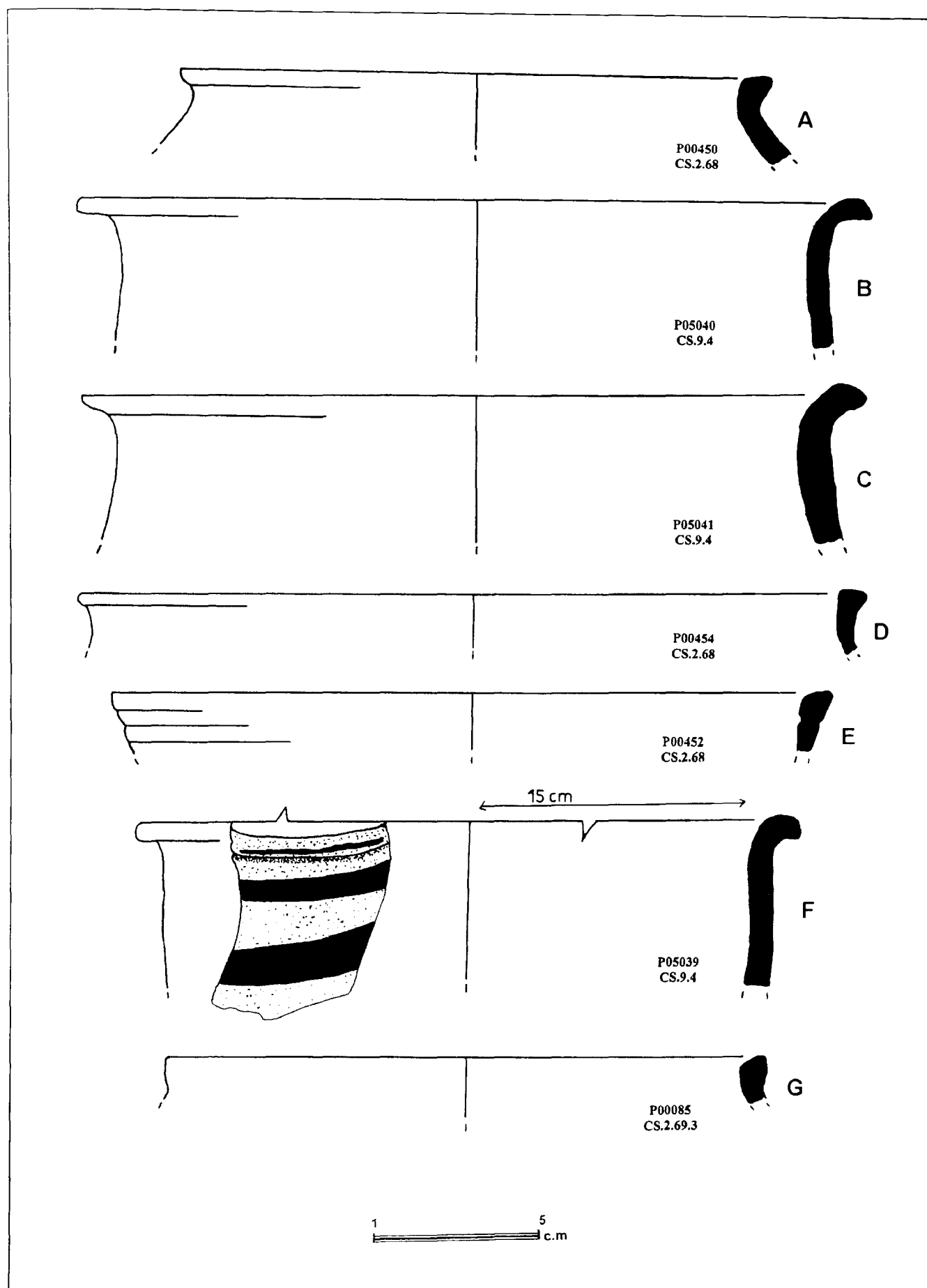


Figure 119 Umm an-Nar rim sherds: UMFBPW (A-G)

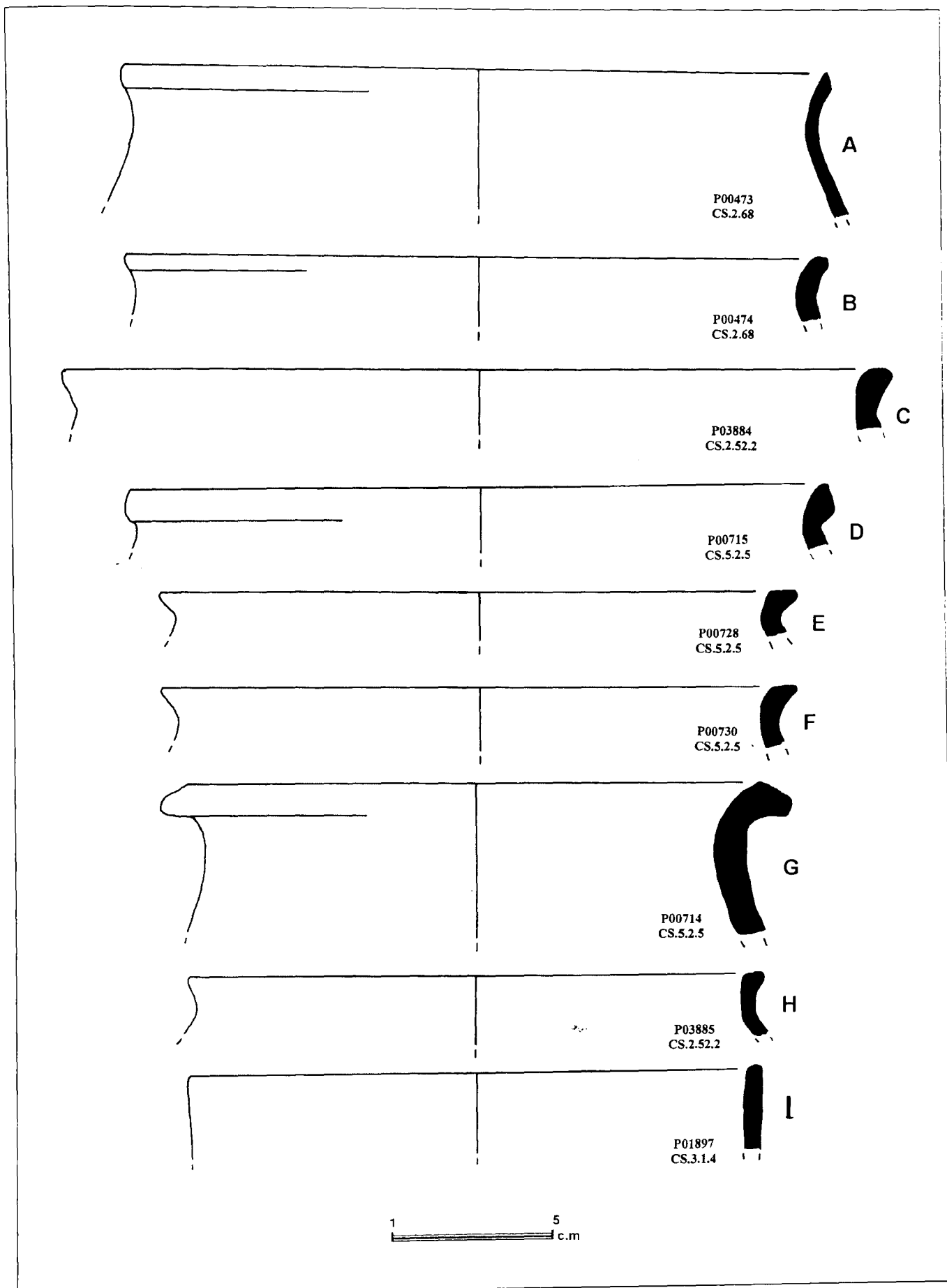


Figure 120 Umm an-Nar rim sherds: UMCGW (A-B), UMCW (C, H, I), UMGCCW (D, G) & UMTFRW (E, F)

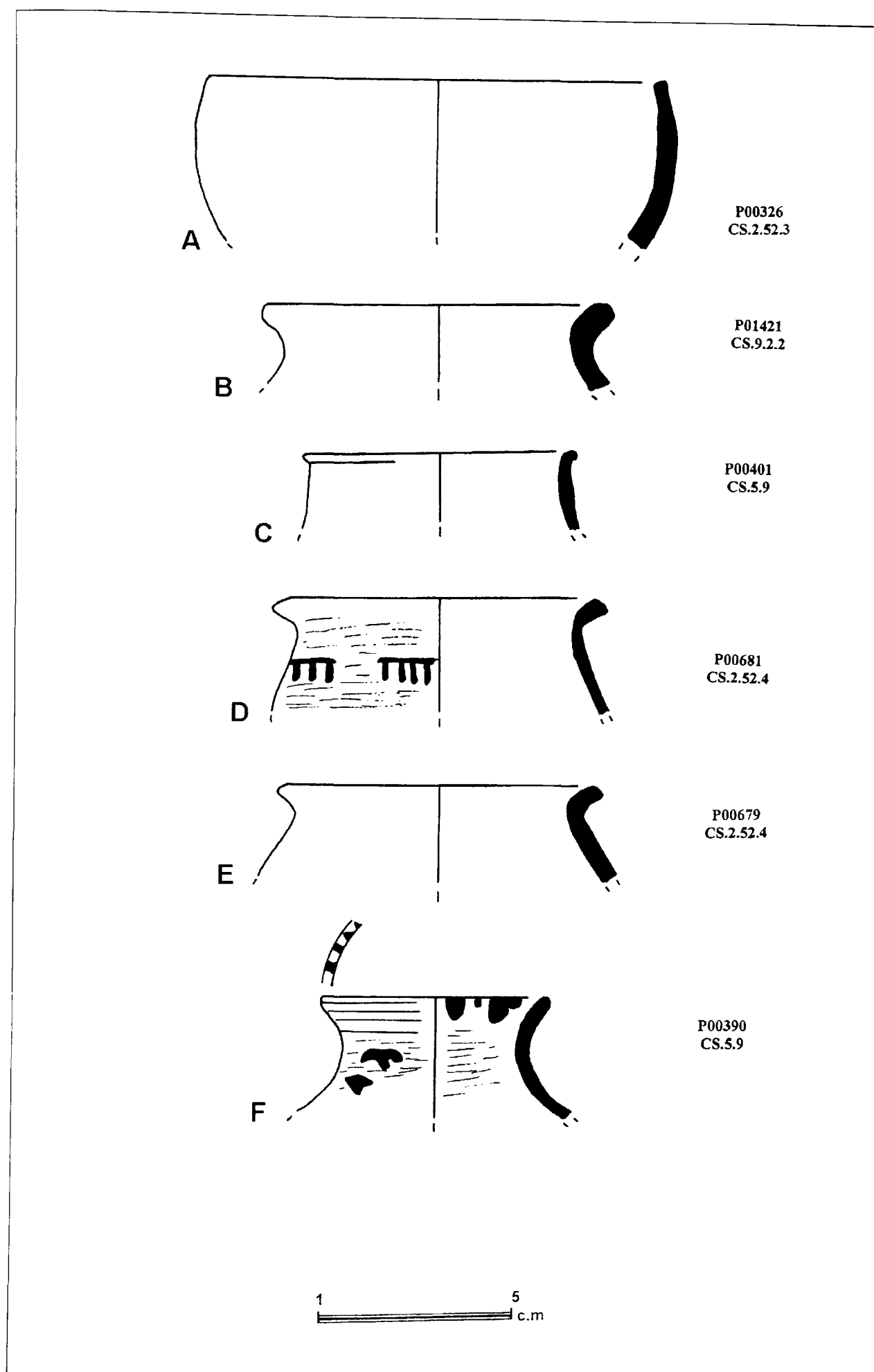


Figure 121 Umm an-Nar vessel rims: UMFBPW (A), UMRYW (B), UMCW (C), UMTGW (D) & UMPGW (E, F)

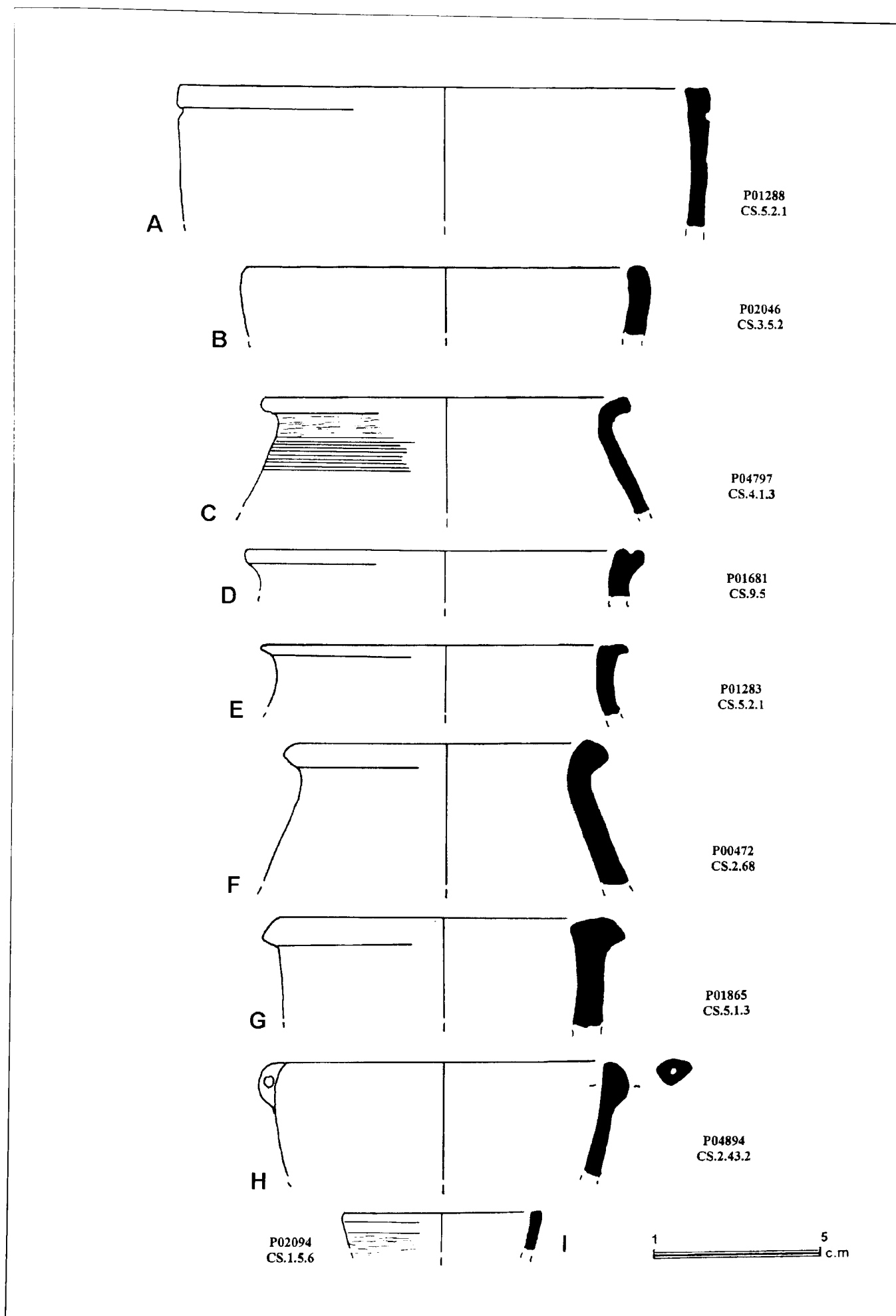


Figure 122 Umm an-Nar vessel rims: UMFw (A), UMGCCW (B, G), UMFGW (C), UMCW (D), UMTFRW (E, H, I) & UMCgw (F)

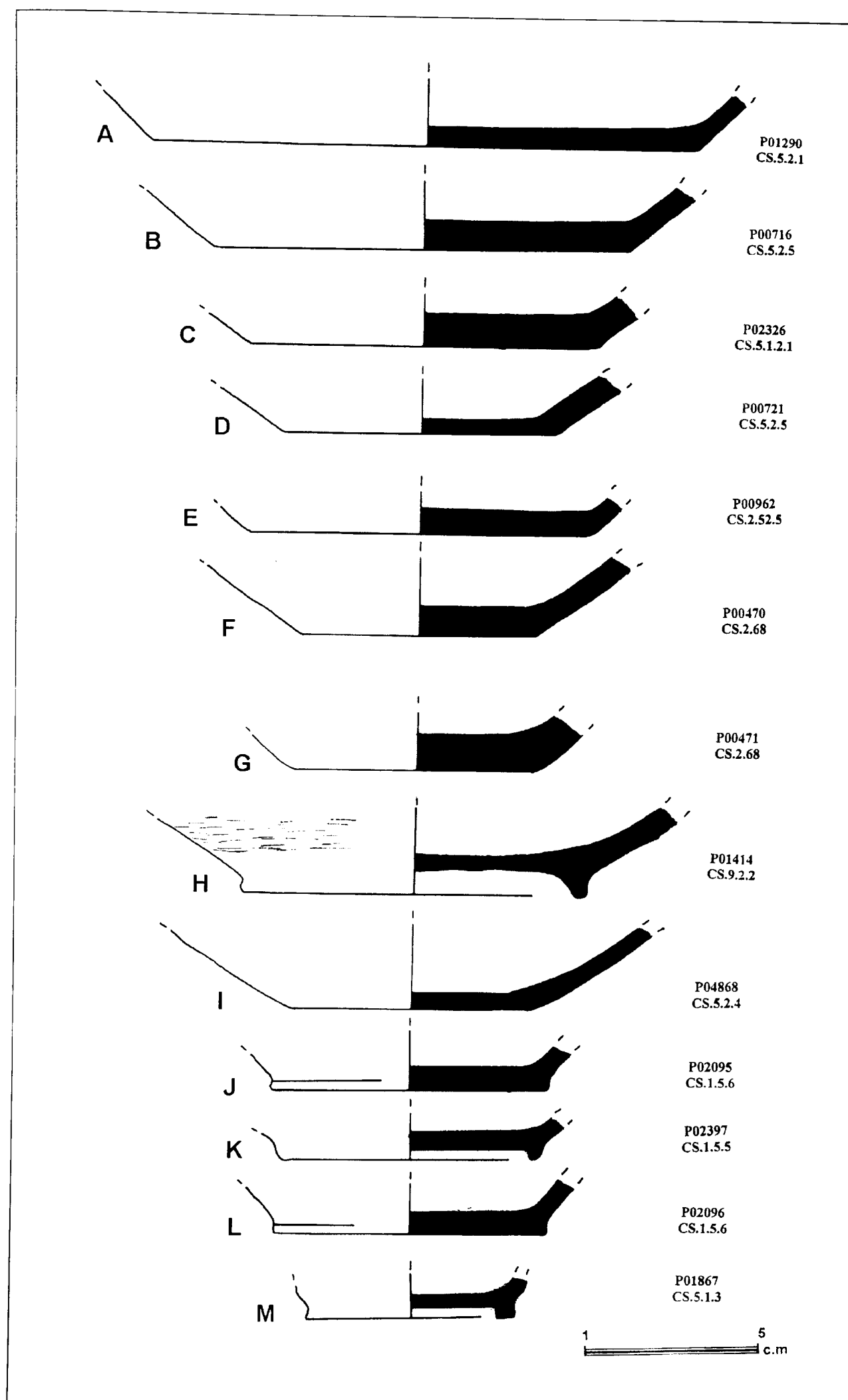


Figure 123 Umm an-Nar vessel bases: UMFw (A, D, E), UMGCCW (B, K, M), UMFGW (C), UMGW (F-I) & UMTFRW (J, L)

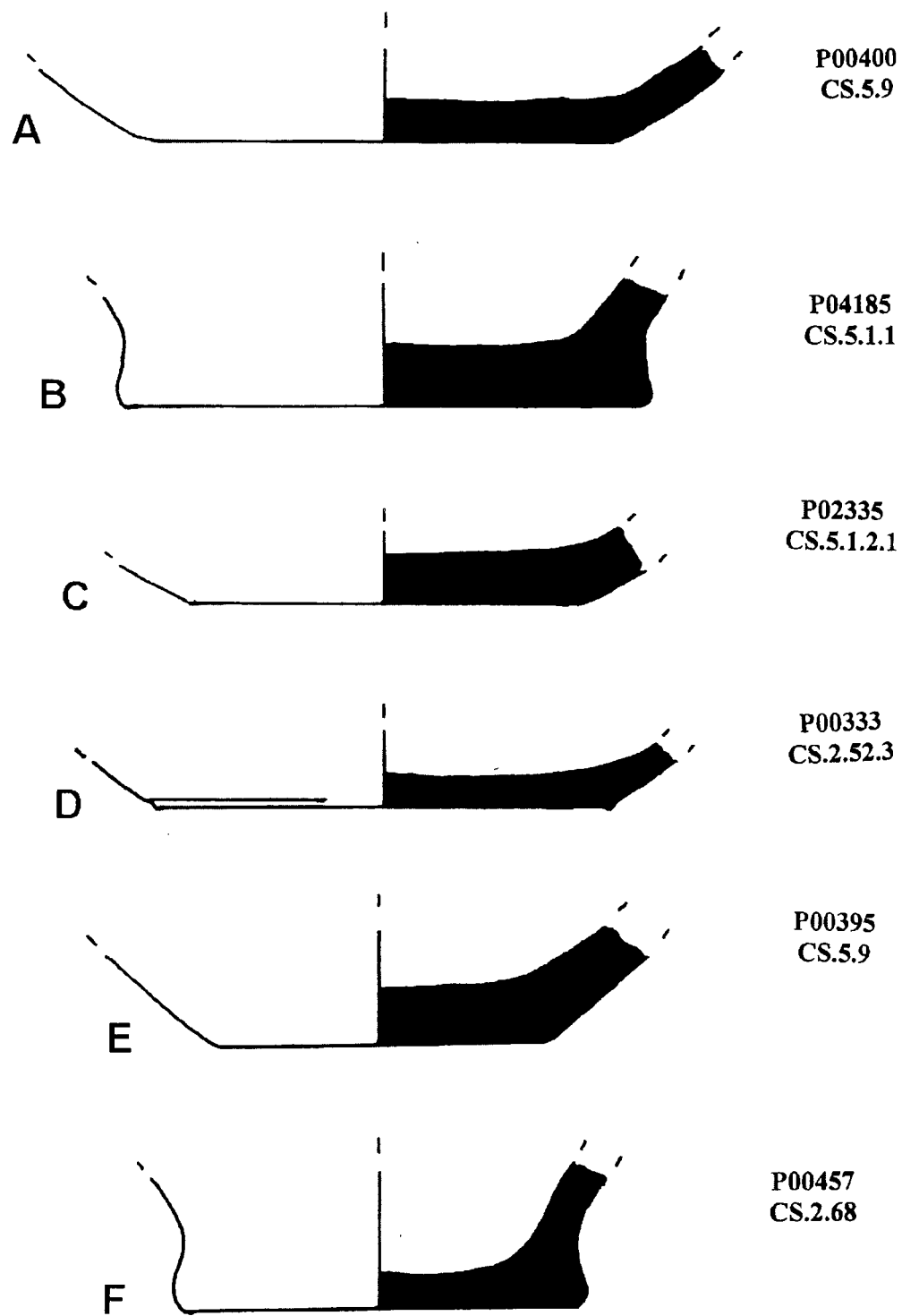


Figure 124 Umm an-Nar vessel bases: UMHFRW (A), UMRYW (B, D, E), UMCW (C), & UMFBPW (F)

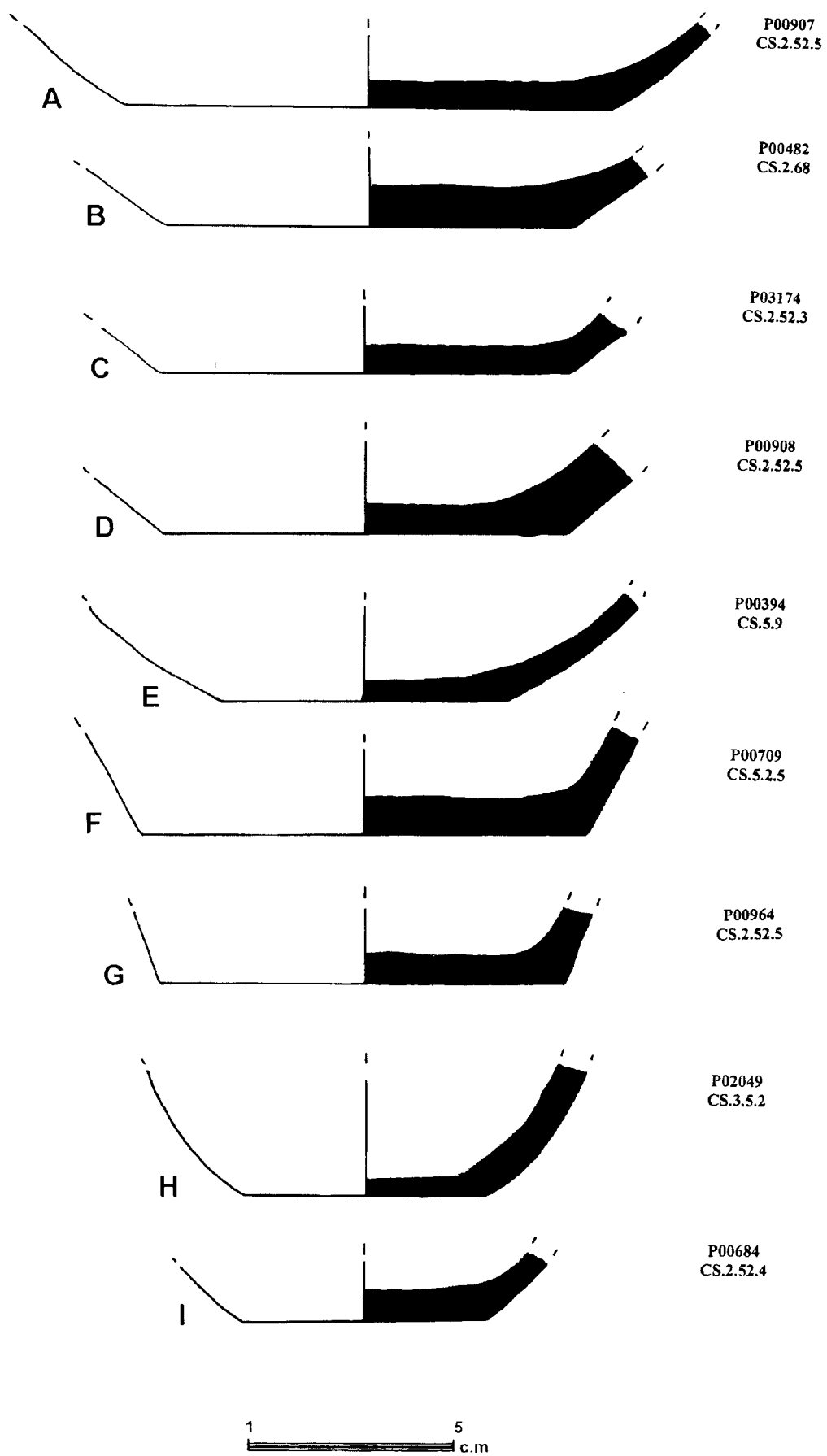


Figure 125 Umm an-Nar vessel bases: UMYRW (A-E, G-I) & UMFBPW (F)

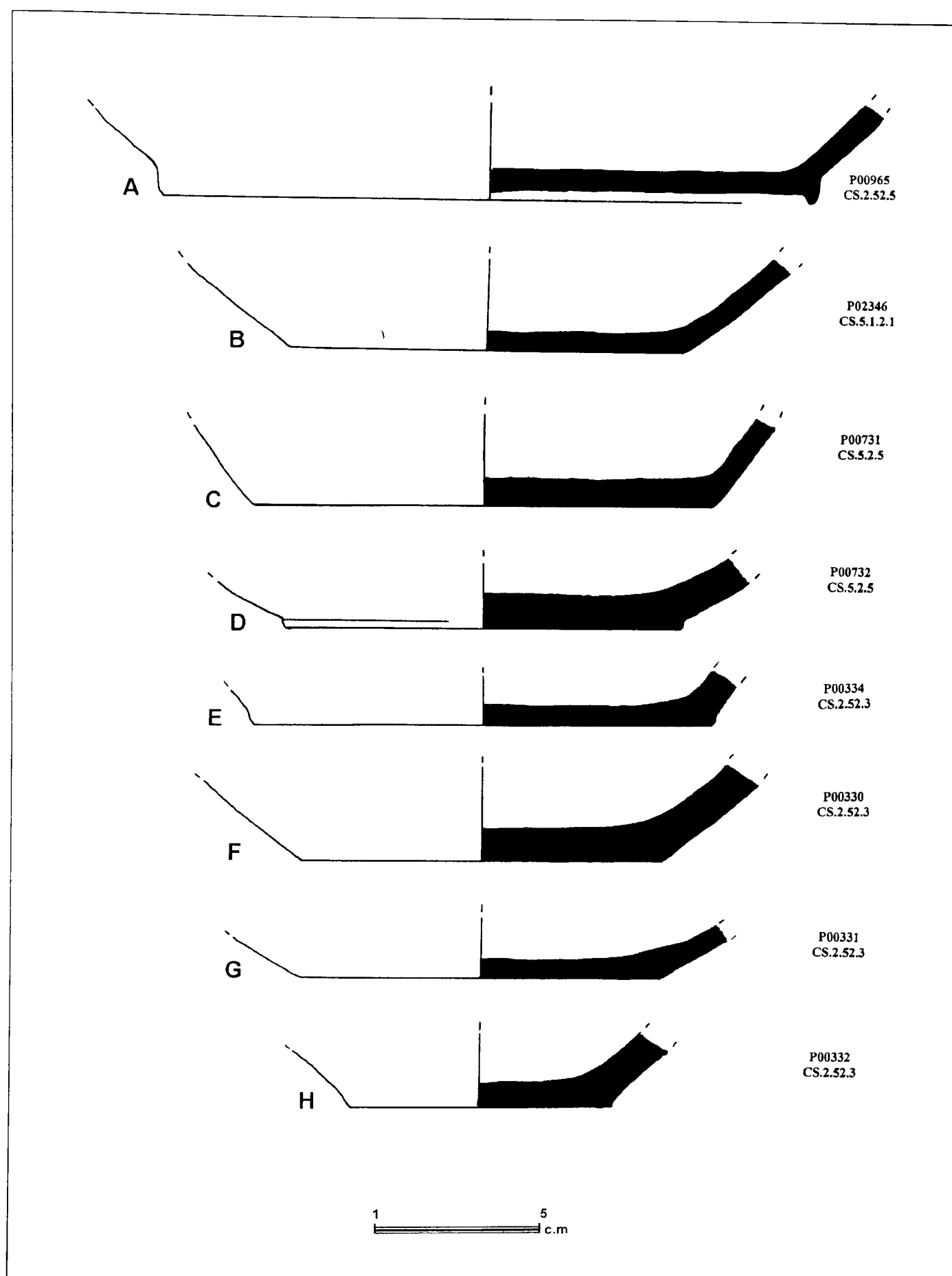


Figure 126 Umm an-Nar vessel bases: UMFBPW (A), UMCW (B) & UMRW (C-H)

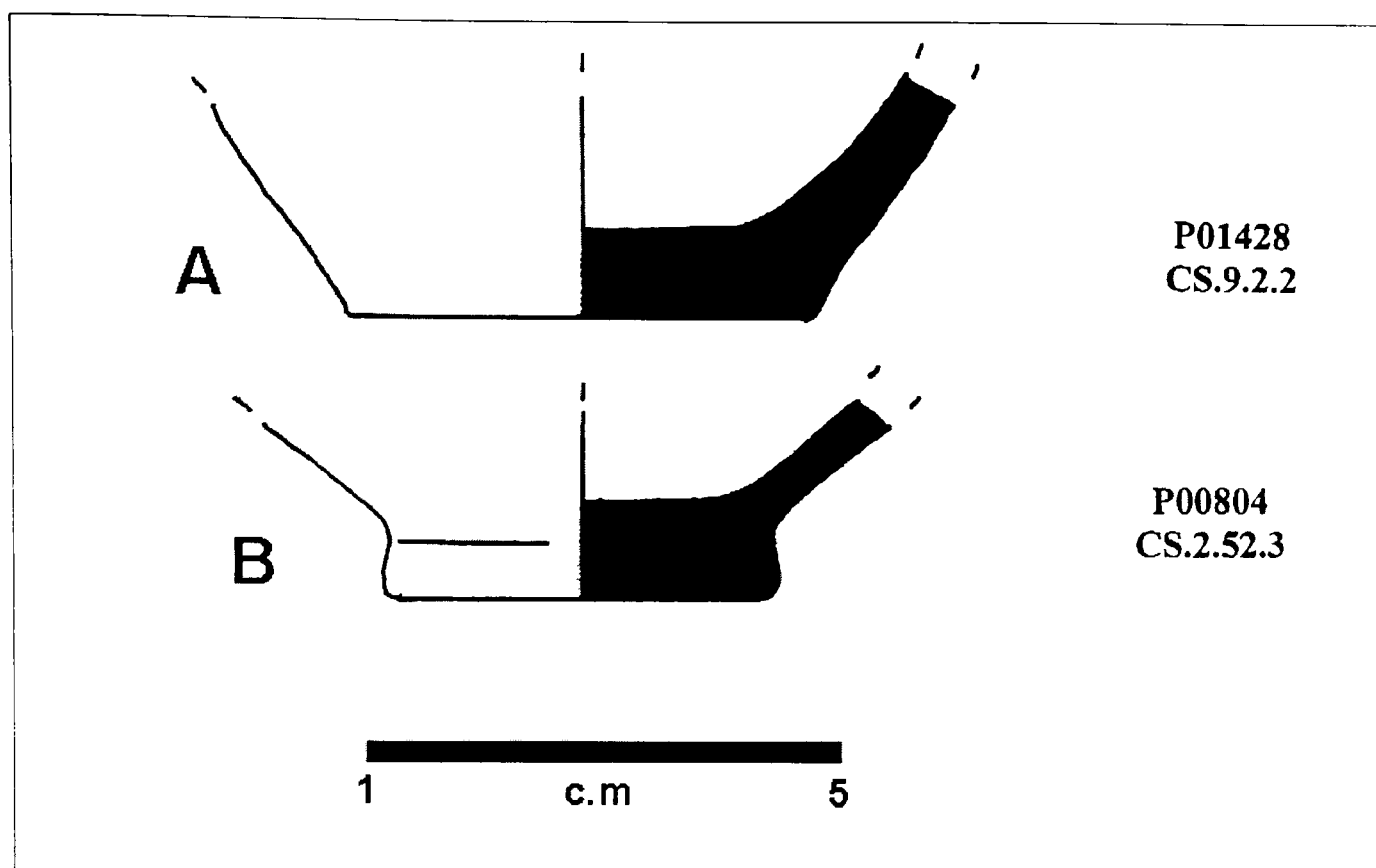


Figure 127 Wadi Suq vessel bases: RYWS (A-B)

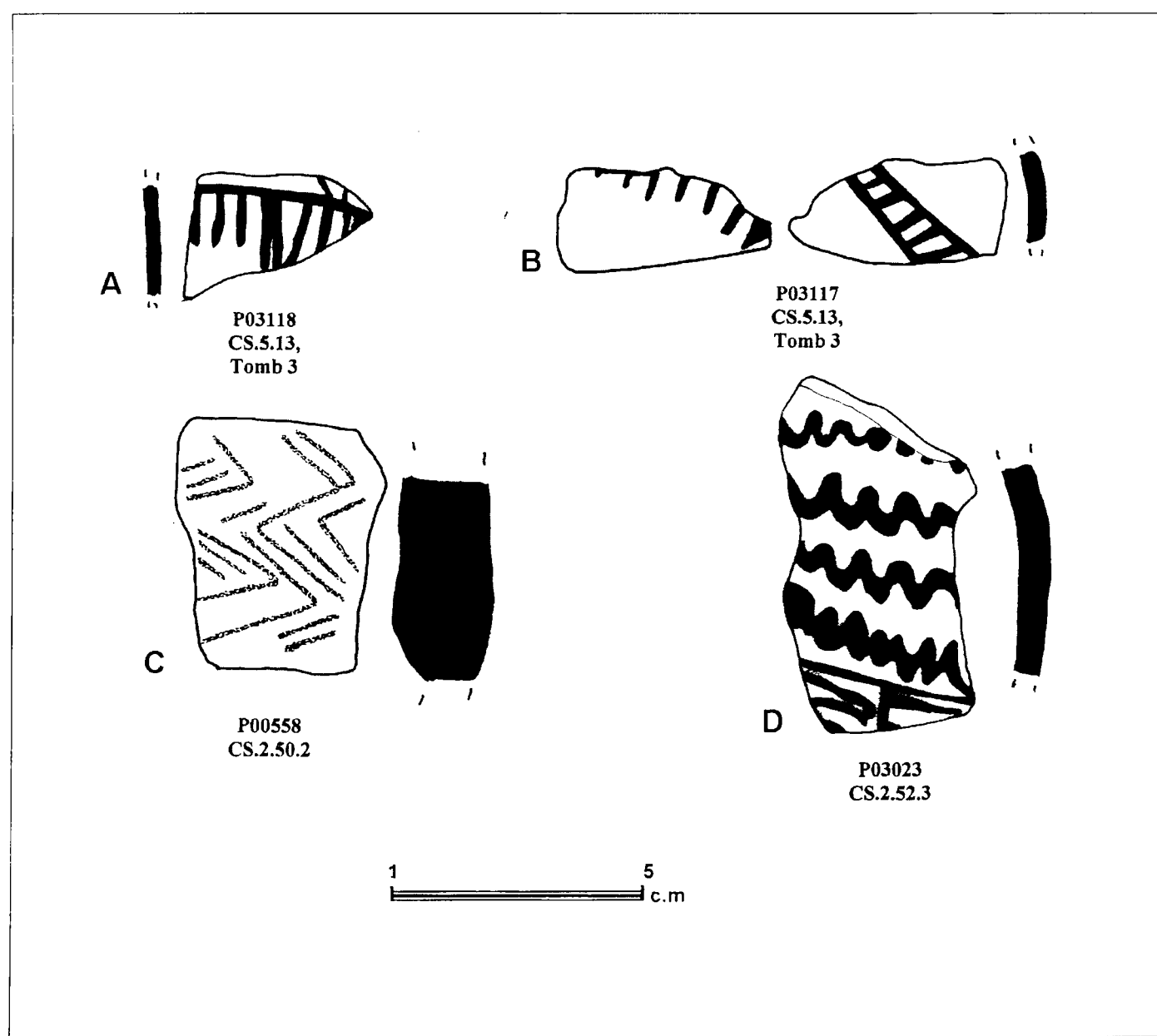


Figure 128 Early Iron Age body sherds: FPEIA (A-B), GSCEIA (C) & PEIA (D)

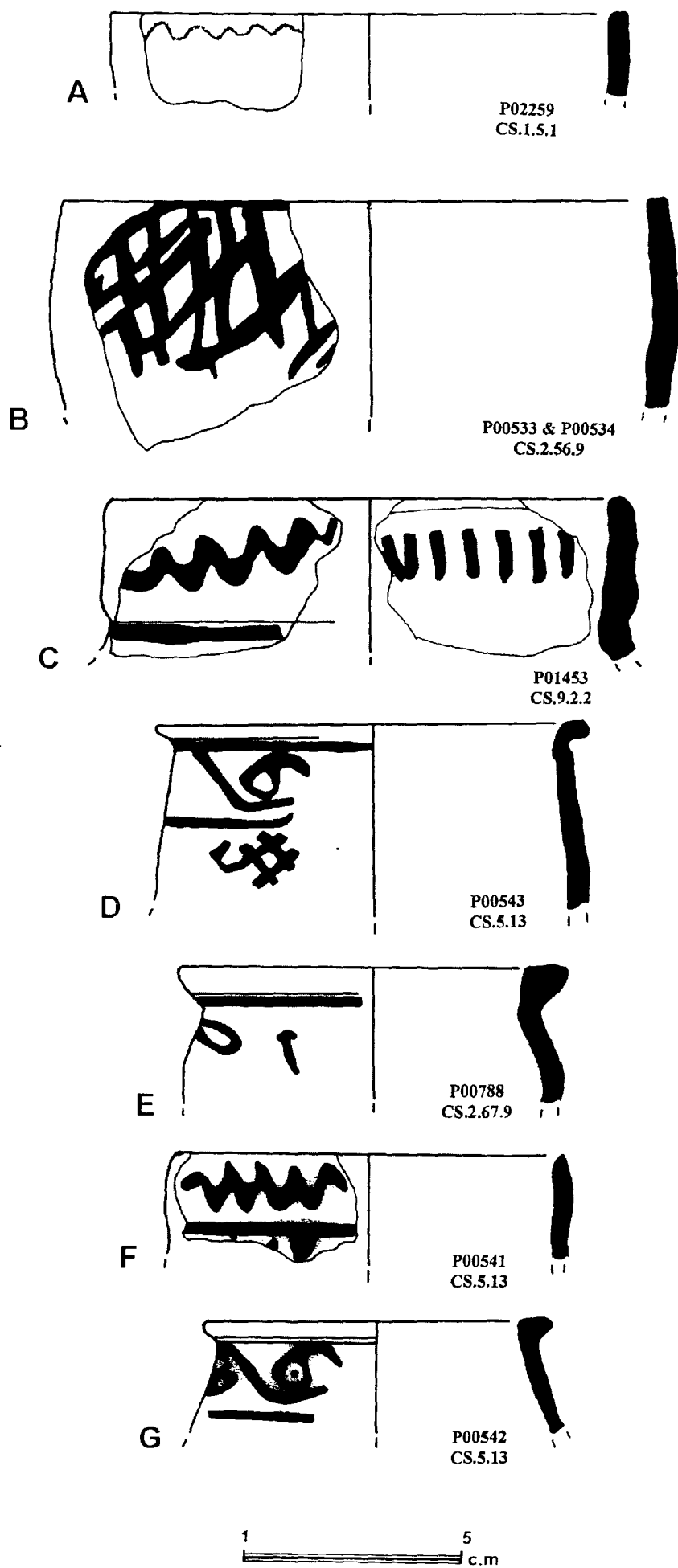


Figure 129 Early Iron Age vessel rims: VTCEIA (A), PEIA (B, C, E) & FPEIA (D, F, G)

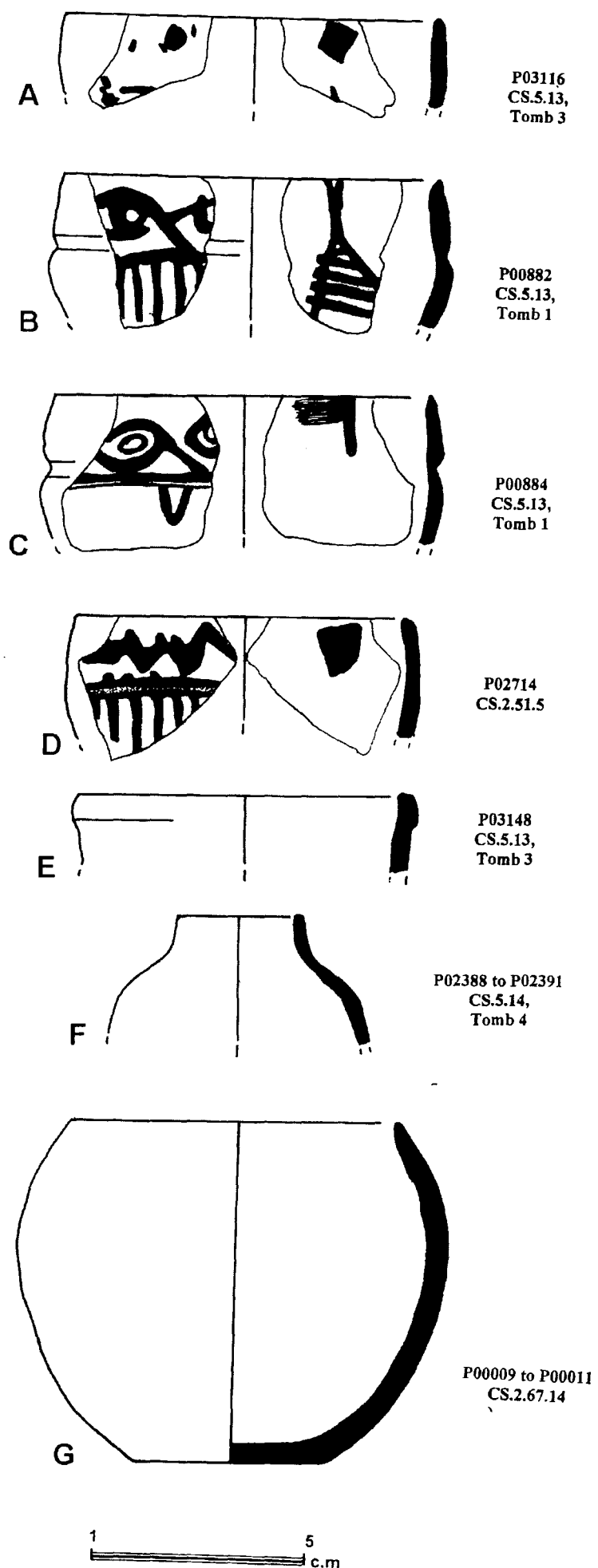


Figure 130 Early Iron Age vessel rims: FPEIA (A-D), VPBEIA (E), PEIA (F) & BREIA (G)

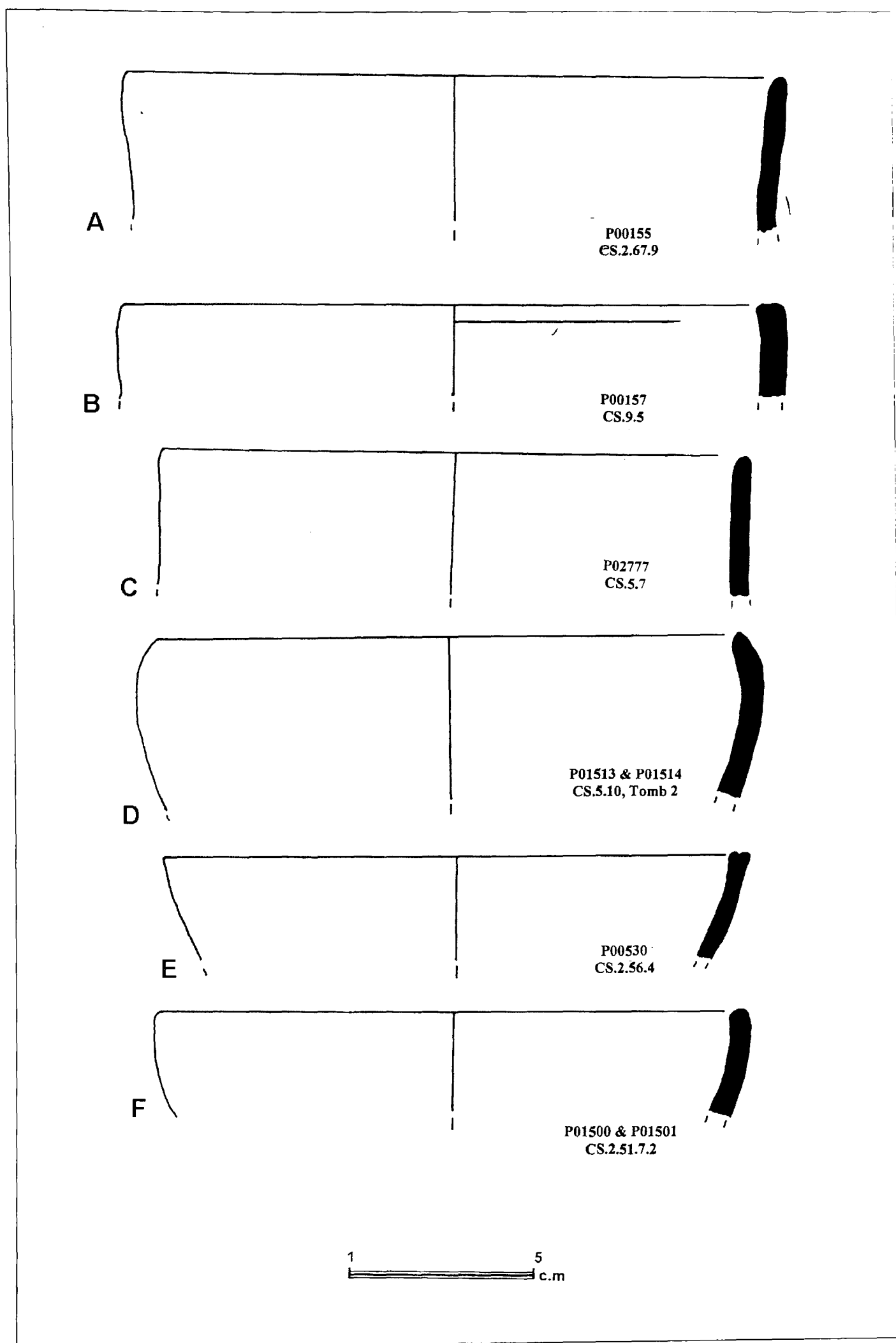


Figure 131 Early Iron Age vessel rims: GMCEIA (A-C), TCEIA (D, F) & TREIA (E)

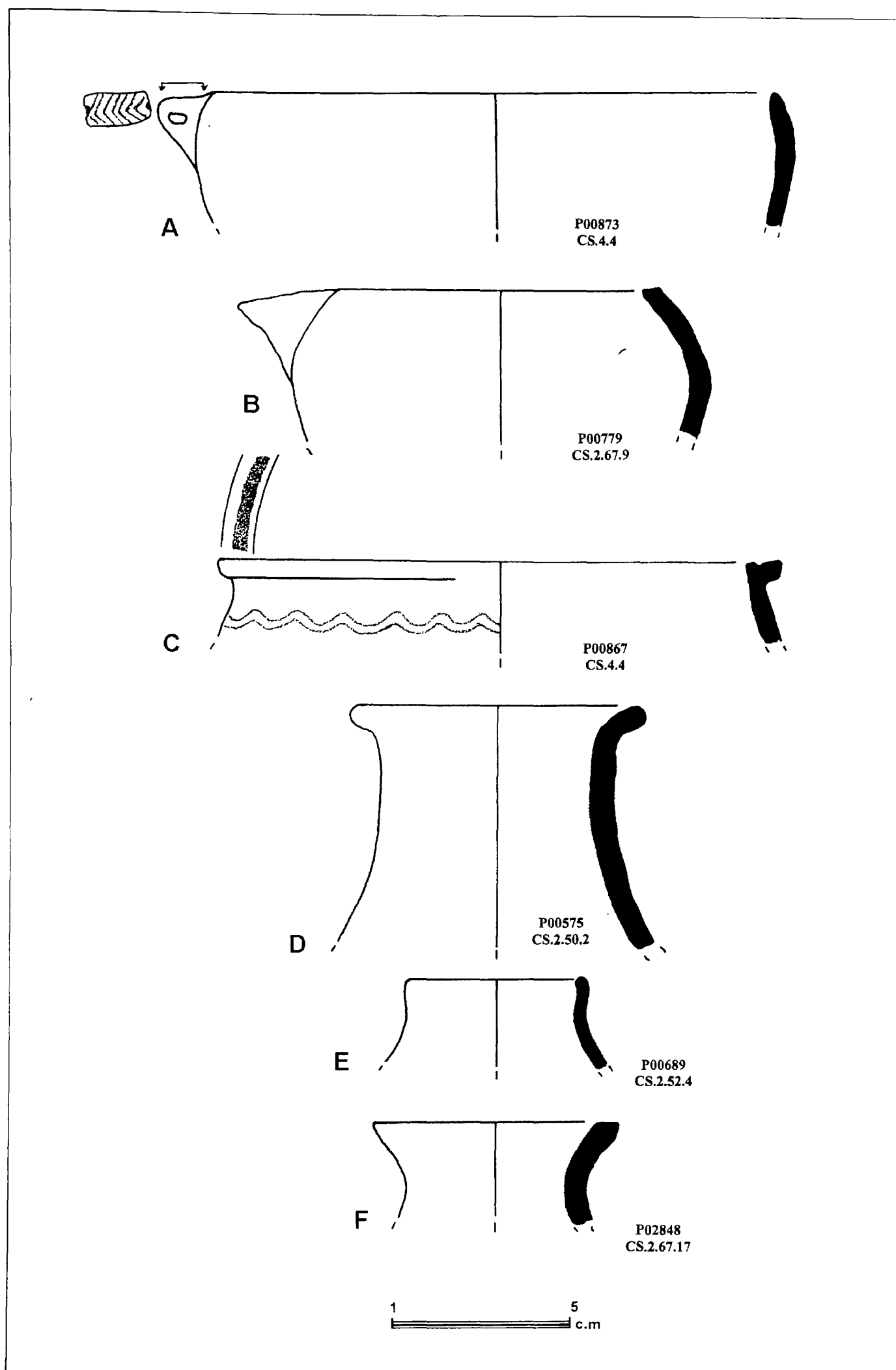


Figure 132 Early Iron Age vessel rims: THFEIA (A, C), LFEIA (B), CEIA (D, F) & VTCEIA (E)

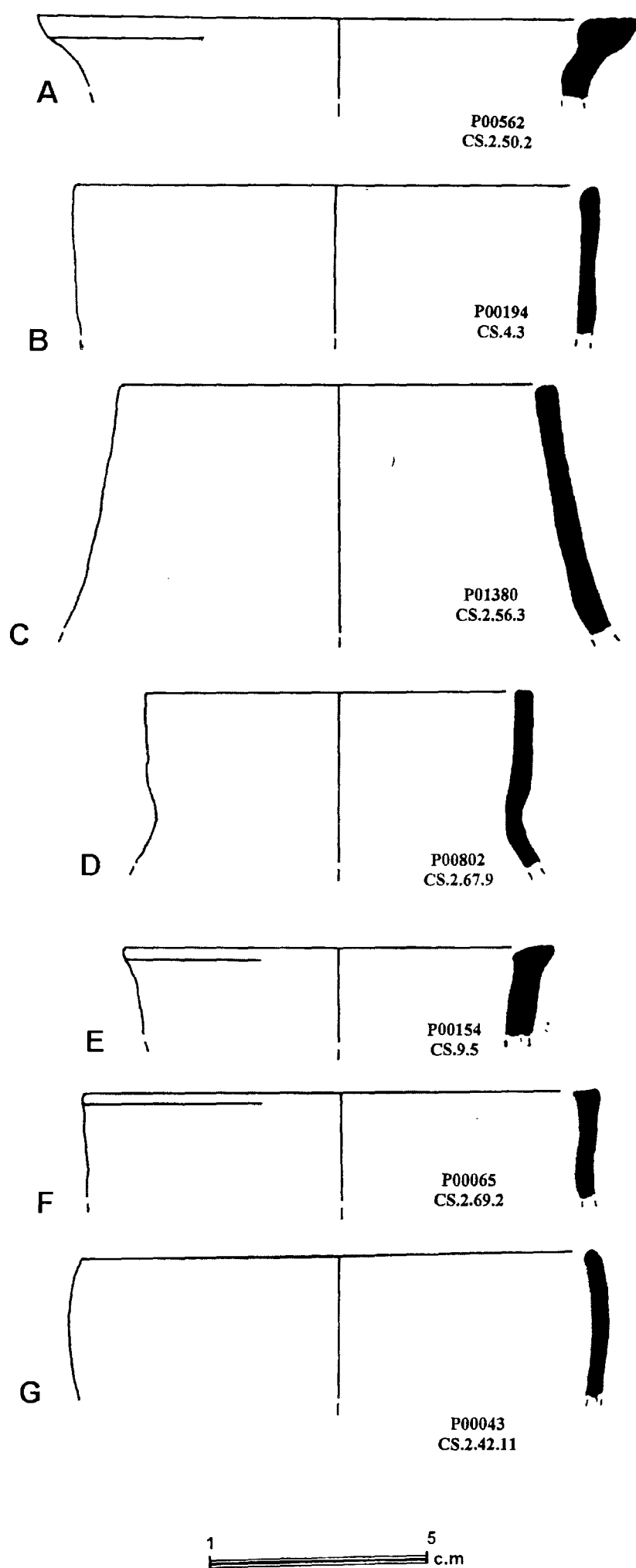


Figure 133 Early Iron Age vessel rims: RLEIA (A, D), RYEIA (B, C), GSCEIA (E), HFEIA (F) & RFEIA (G)

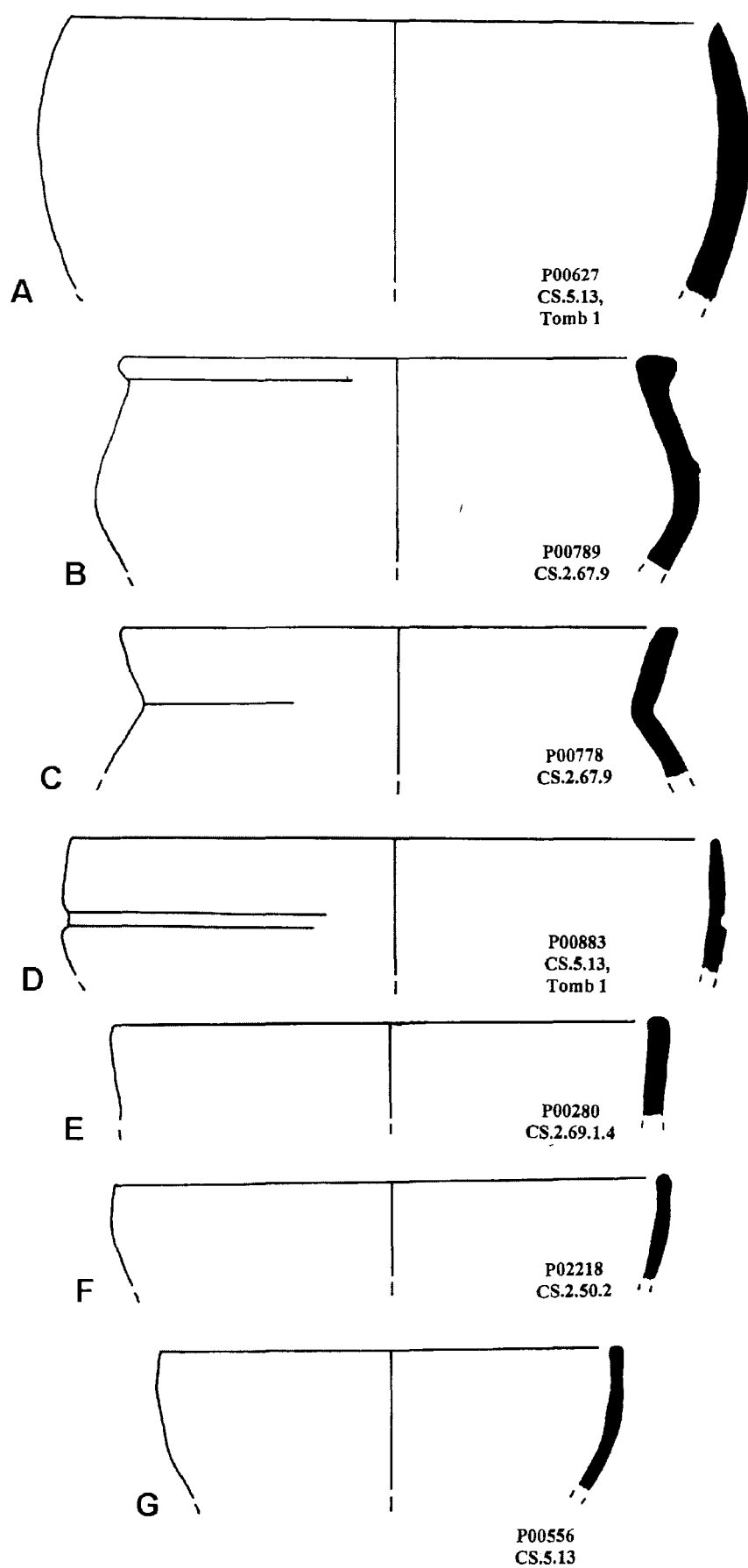


Figure 134 Early Iron Age vessel rims: RBCEIA (A), PEIA (B), LFEIA (C), FPEIA (D, E), TREIA (F) & TCEIA (G)

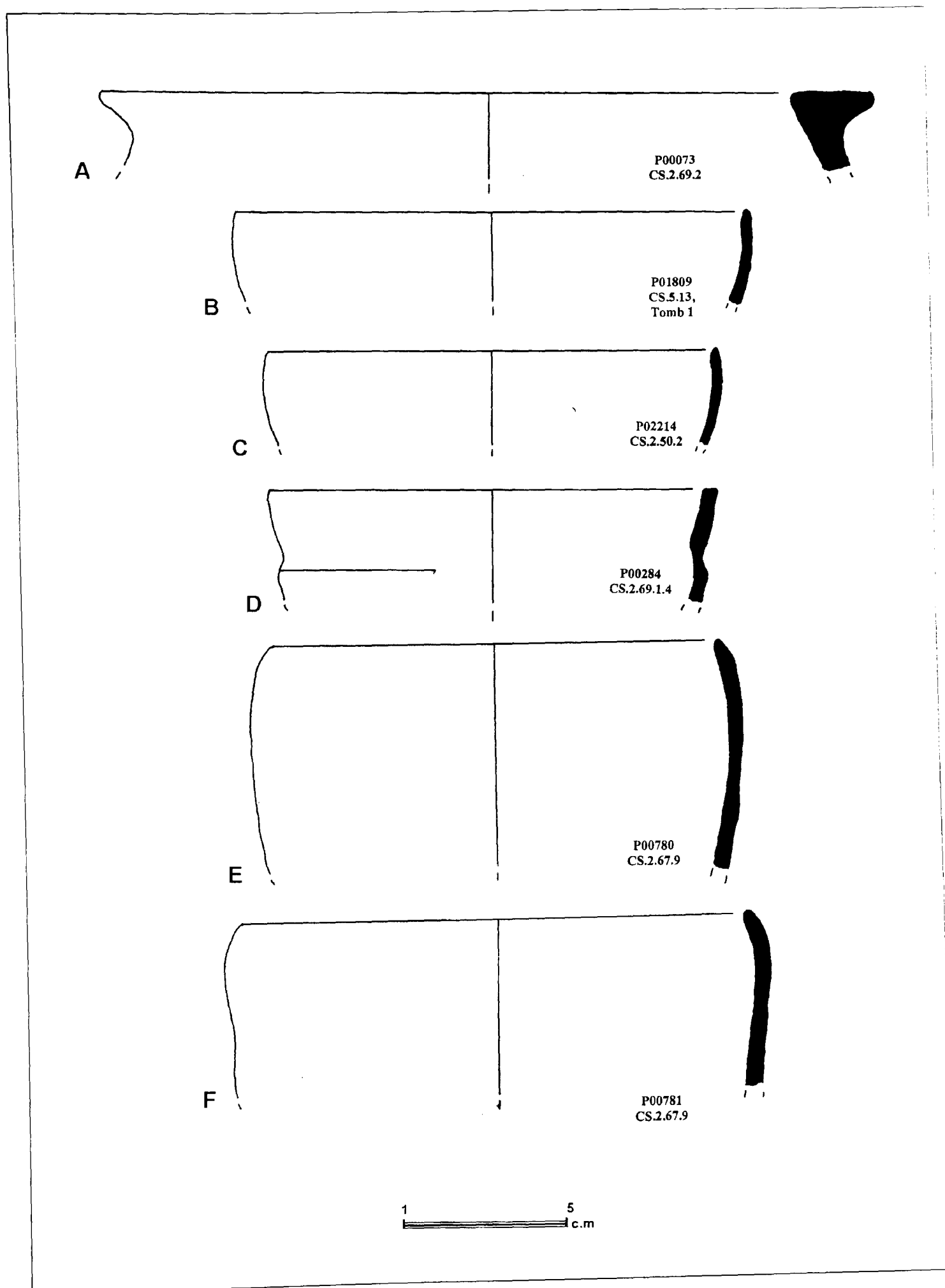


Figure 135 Early Iron Age vessel rims: TBPEIA (A), TREIA (B, C), THFEIA (D) & LFEIA (E, F)

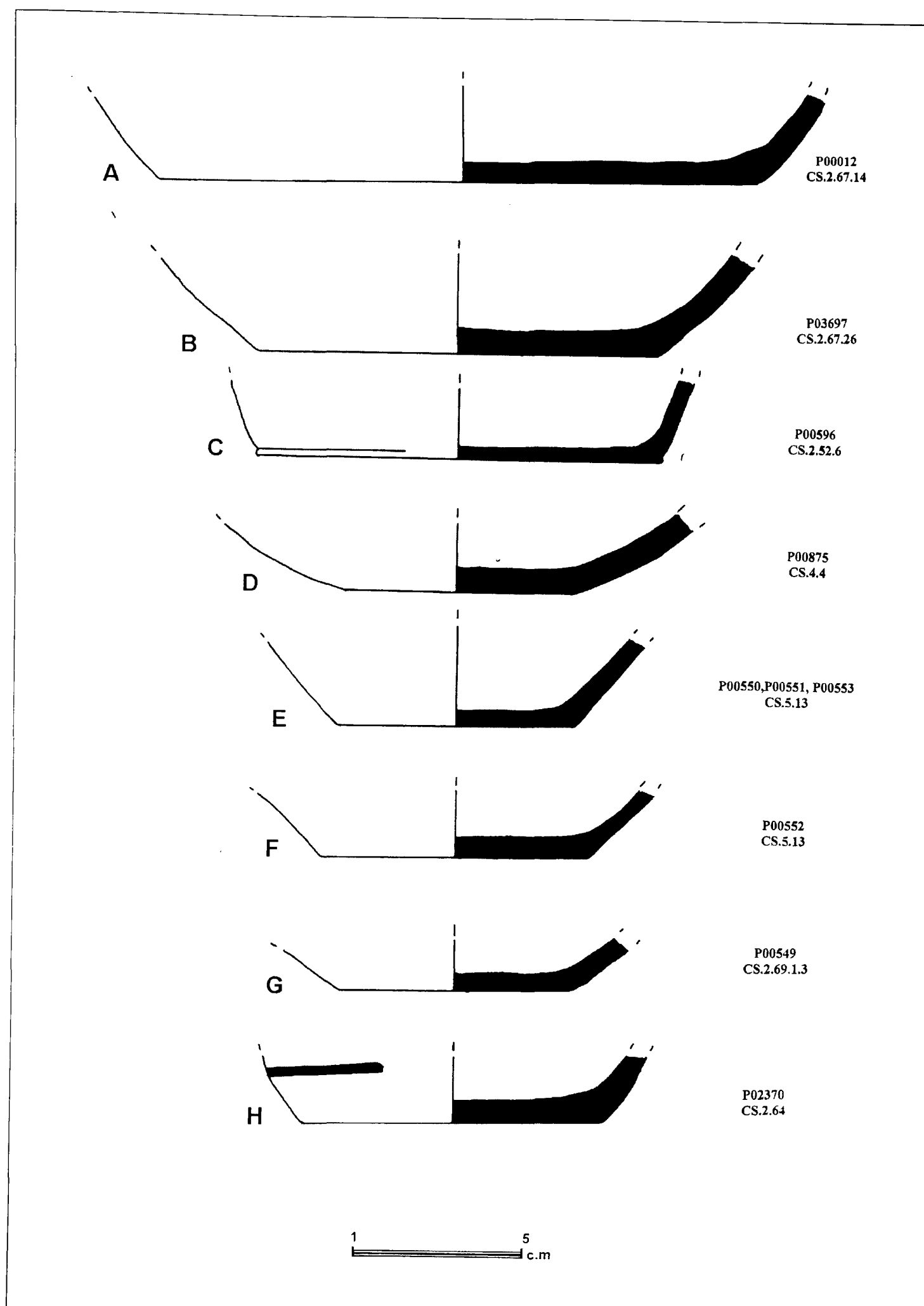


Figure 136 Early Iron Age vessel bases: THFEIA (A), RYEIA (B), GSCEIA (C), RFEIA (D) & PEIA (E-H)

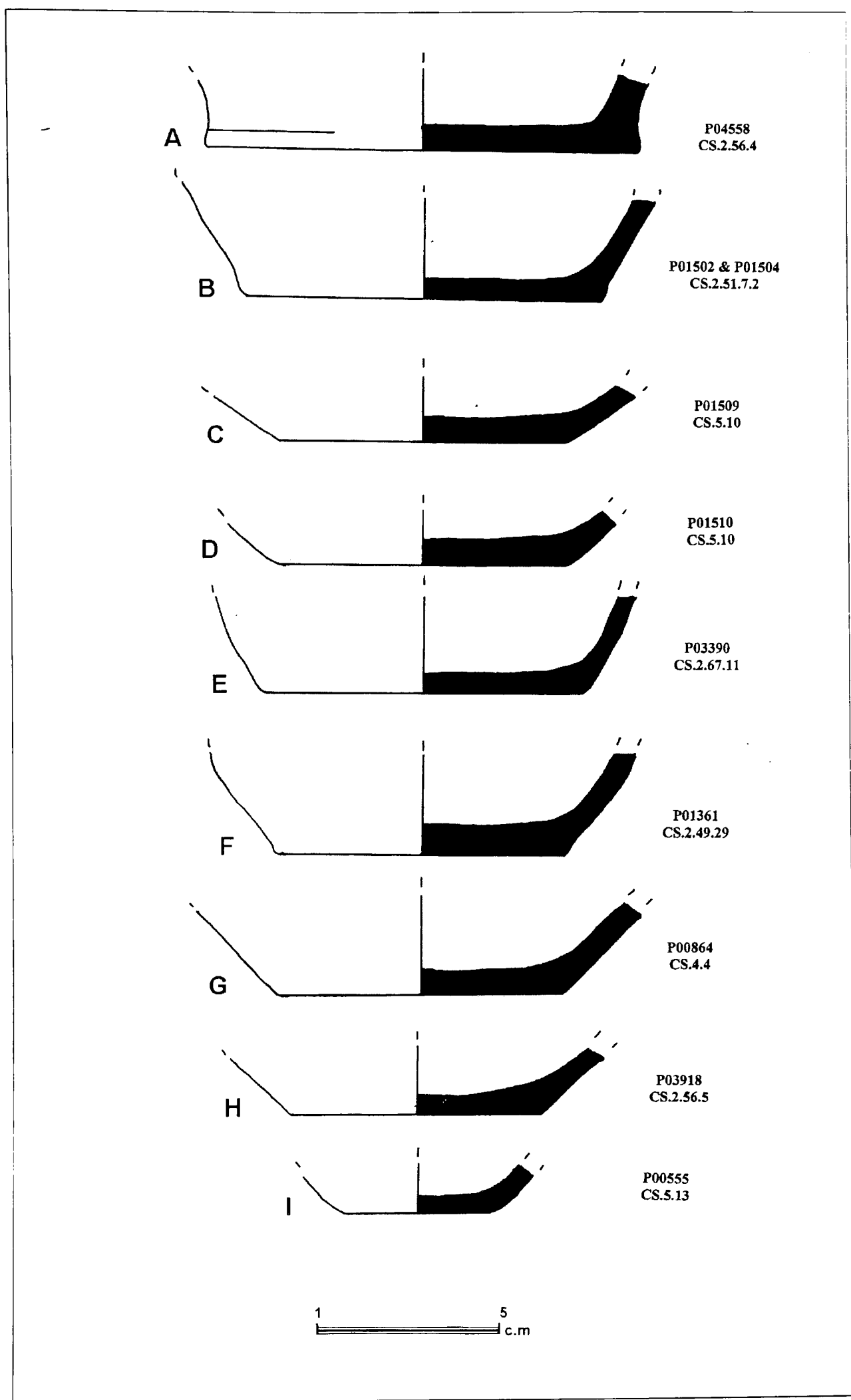


Figure 137 Early Iron Age vessel bases: GMCEIA (A), TCEIA (B-D), CEIA (E, F), THFEIA (G) & VPBEIA (H-I)

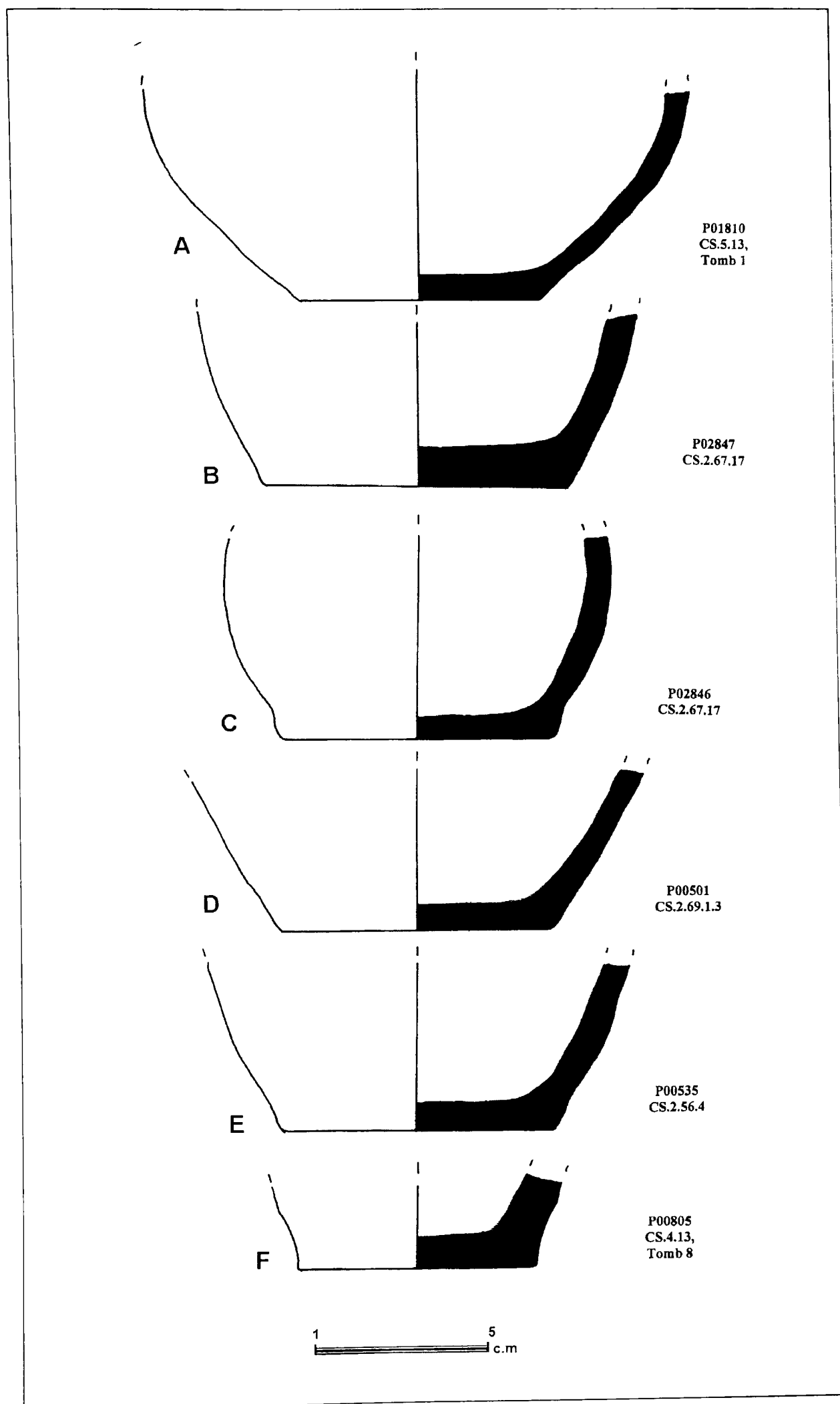


Figure 138 Early Iron Age vessel bases: RBCEIA (A), CEIA (B-C), HFEIA (D) & GMCEIA (E-F)

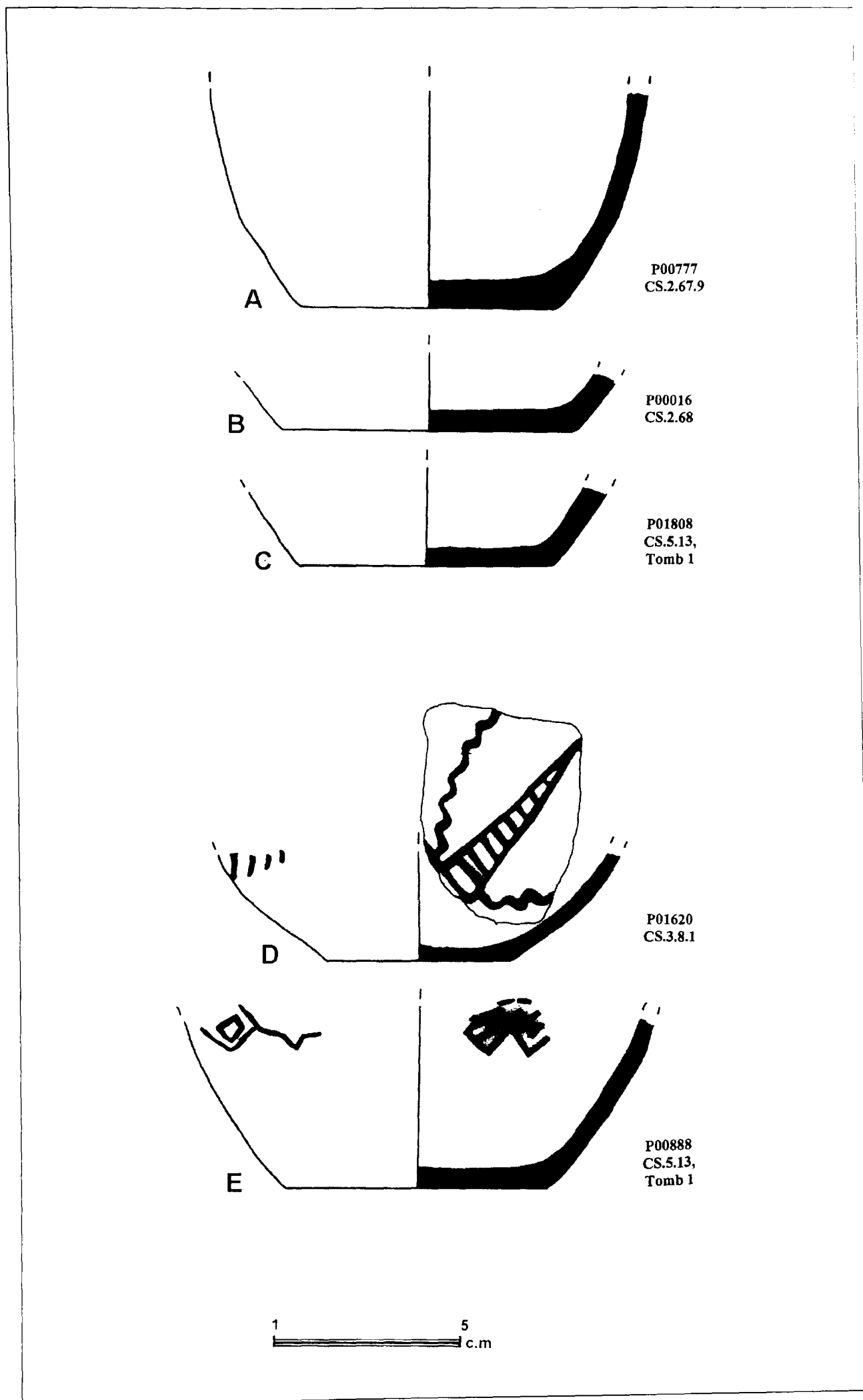


Figure 139 Early Iron Age vessel bases: LFEIA (A), RLEIA (B), TREIA (C), FPEIA (D) & PEIA (E)

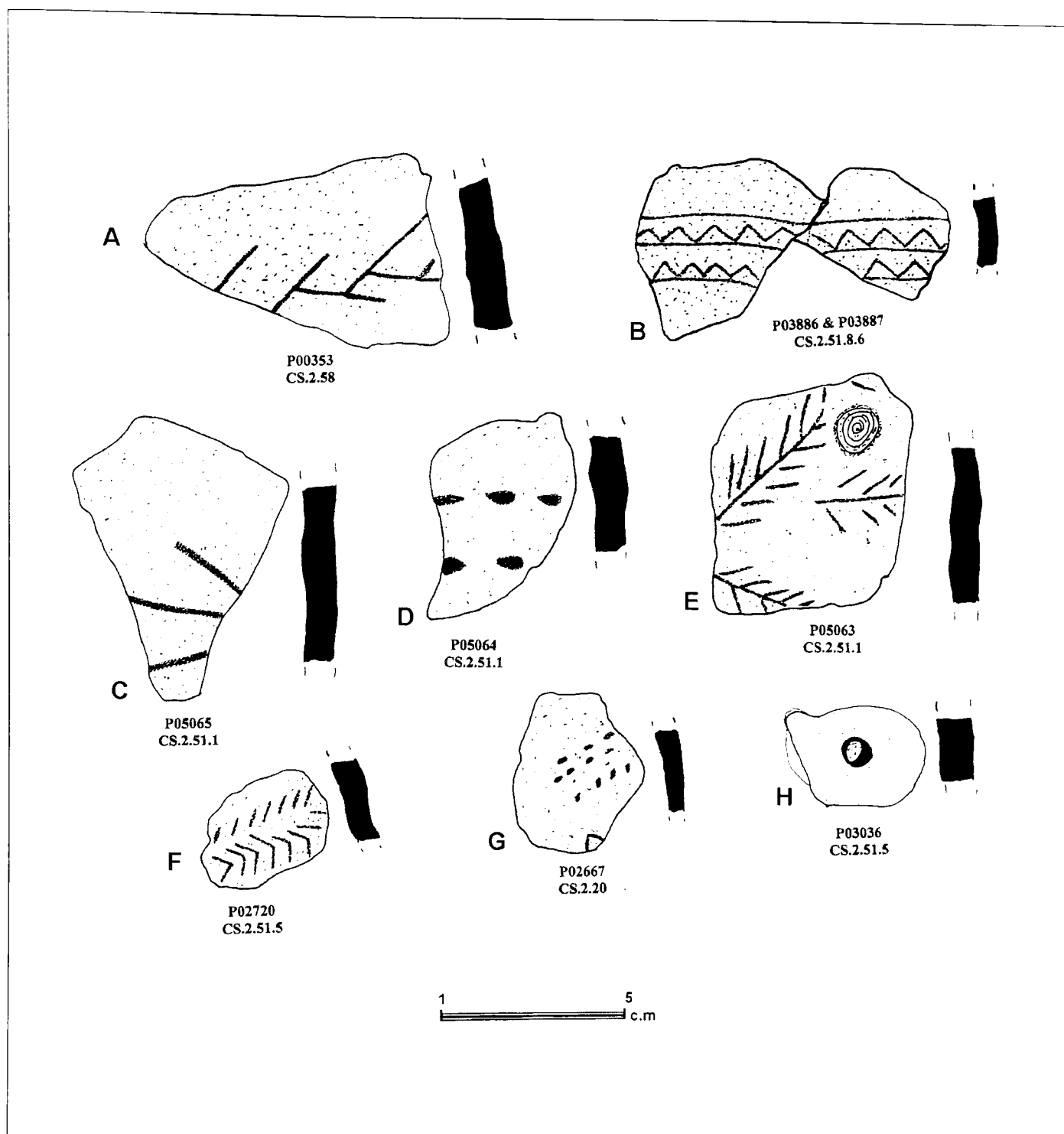


Figure 140 Late Iron Age body sherds: TCLIA (A-B) & CLIA (C-H)

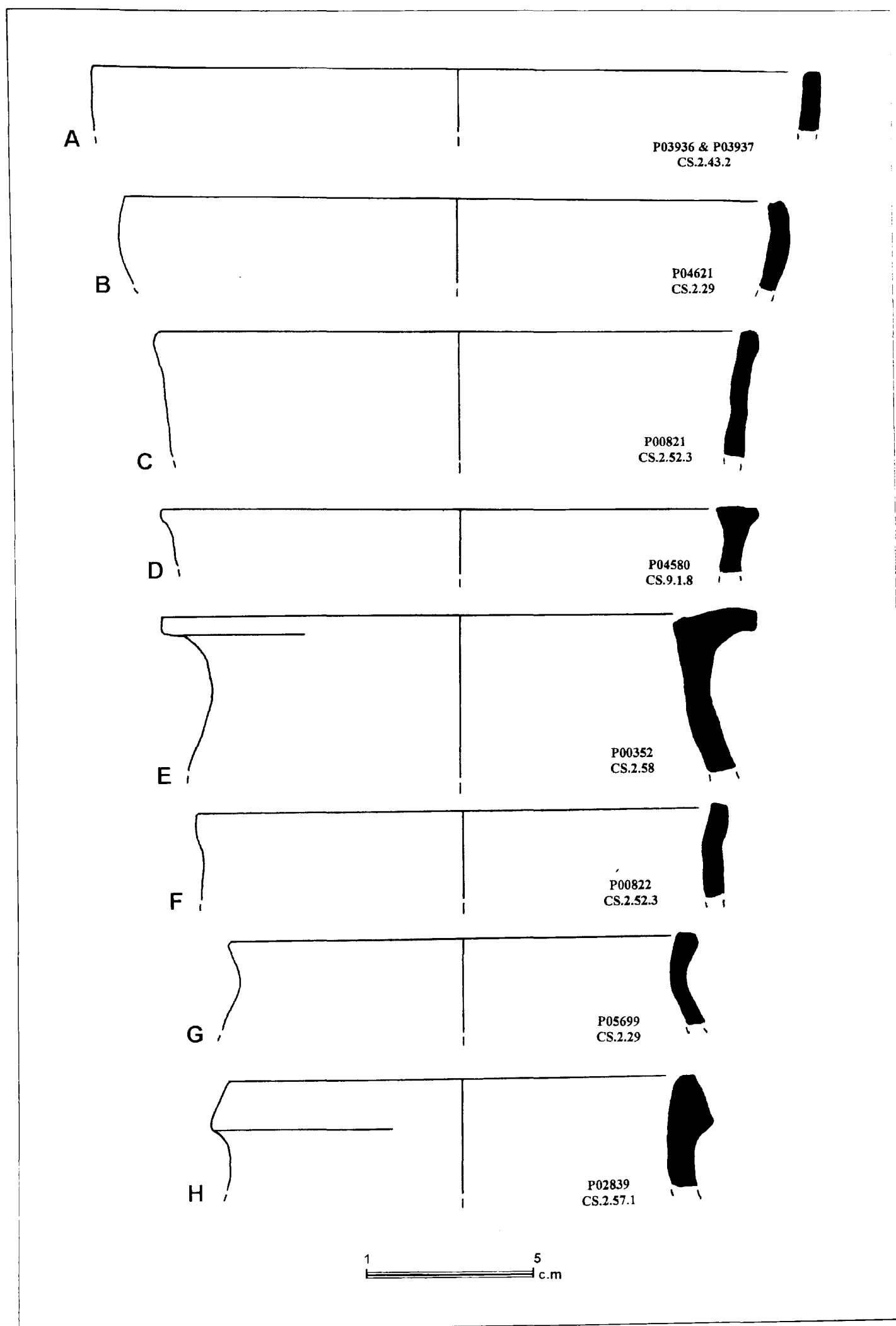


Figure 141 Late Iron Age vessel rims: CLIA (A-D, F, H) & TCLIA (E, G)

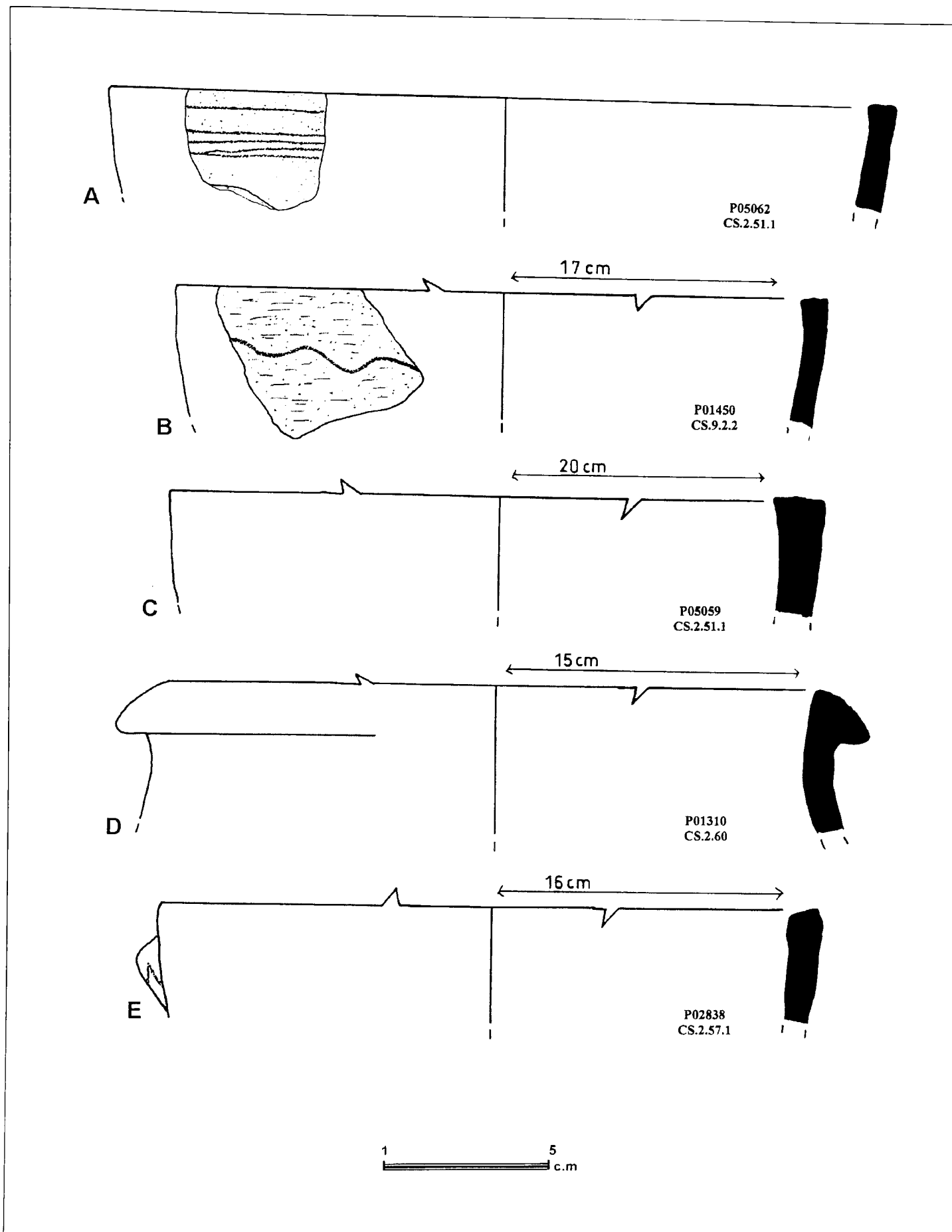


Figure 142 Late Iron Age vessel rims: CLIA (A, C-E) & TCLIA (B)

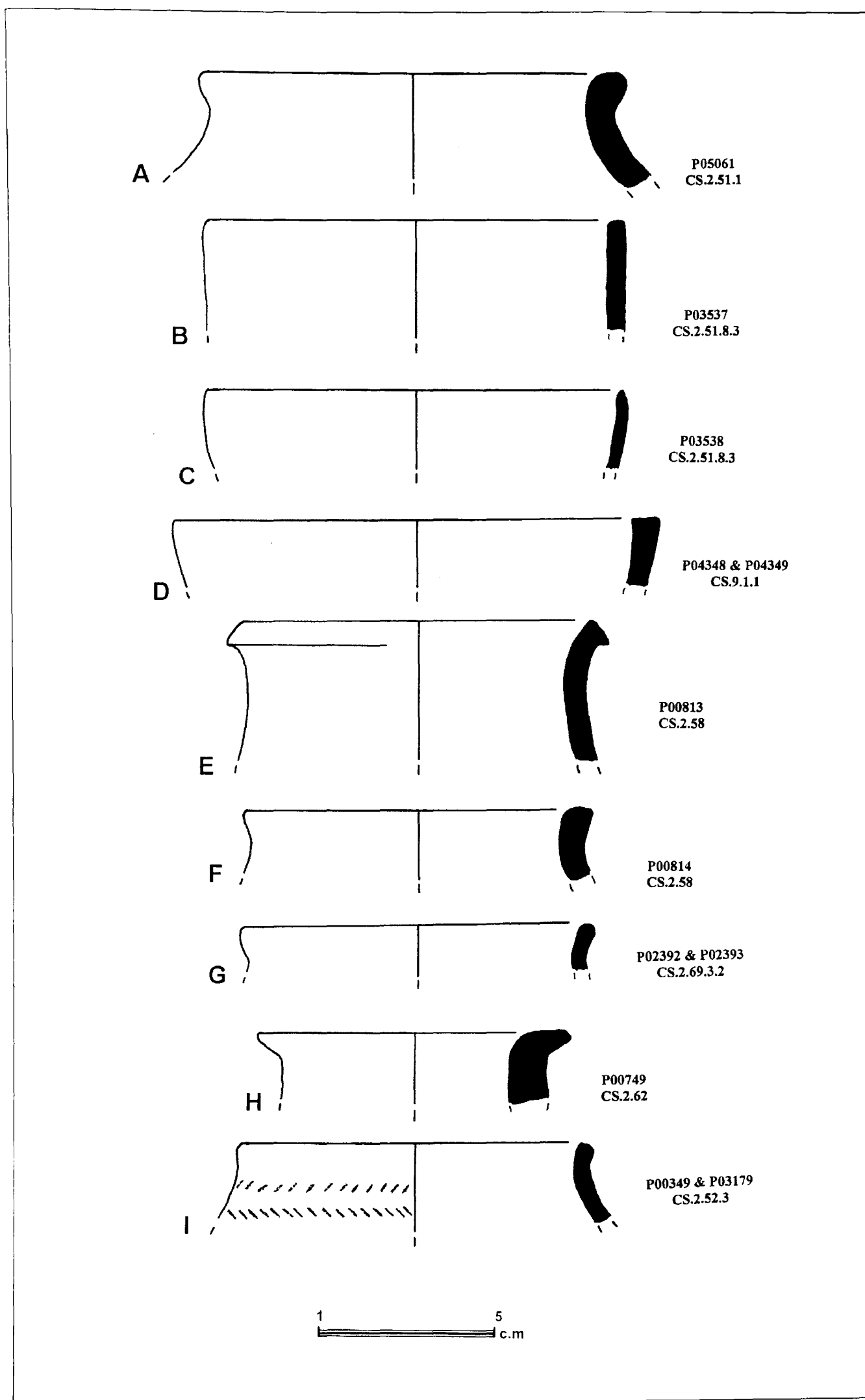


Figure 143 Late Iron Age vessel rims: CLIA (A, E, F, H, I), TCLIA (B, C, G) & LGCLIA (D)

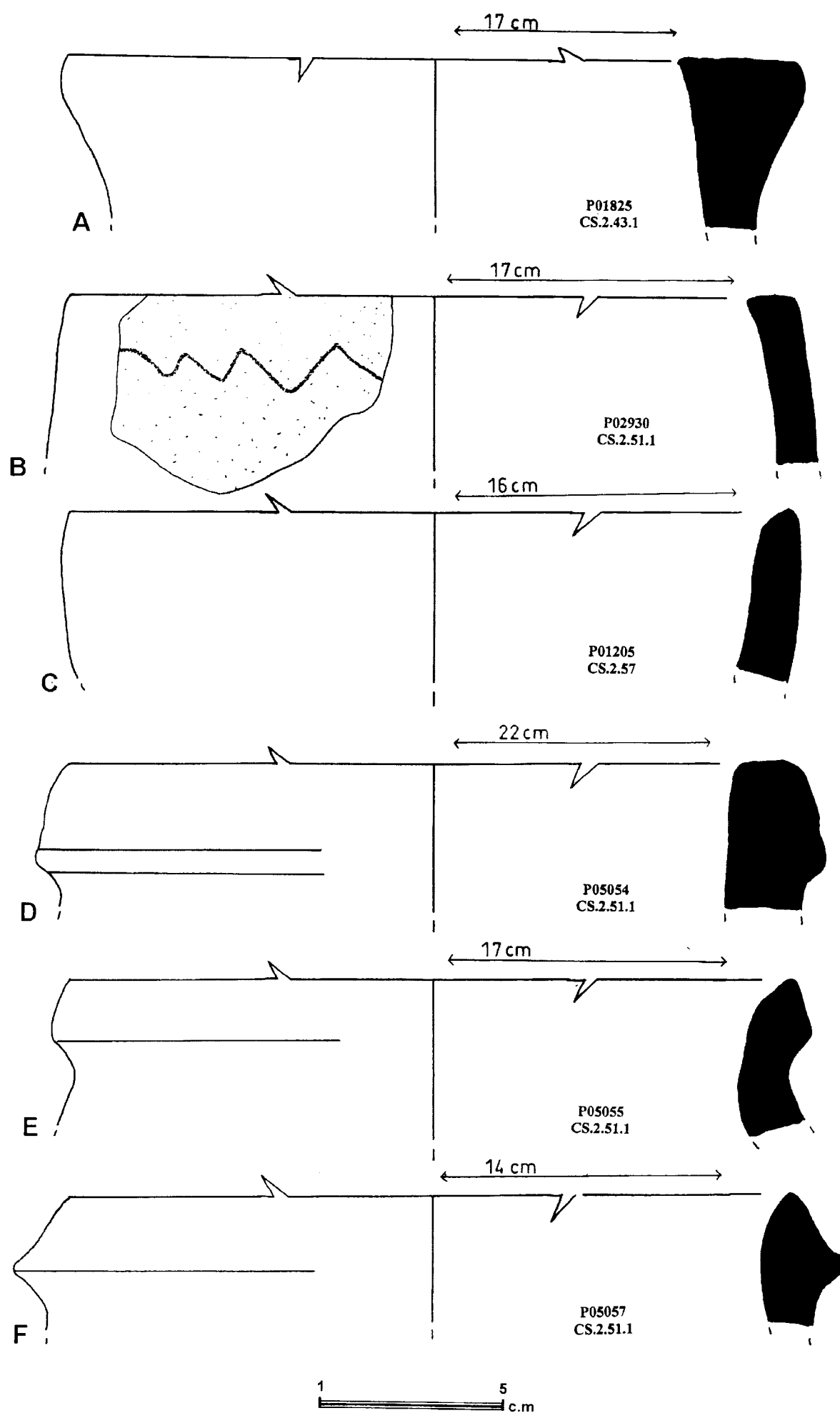


Figure 144 Late Iron Age vessel rims: LGCLIA (A-F)

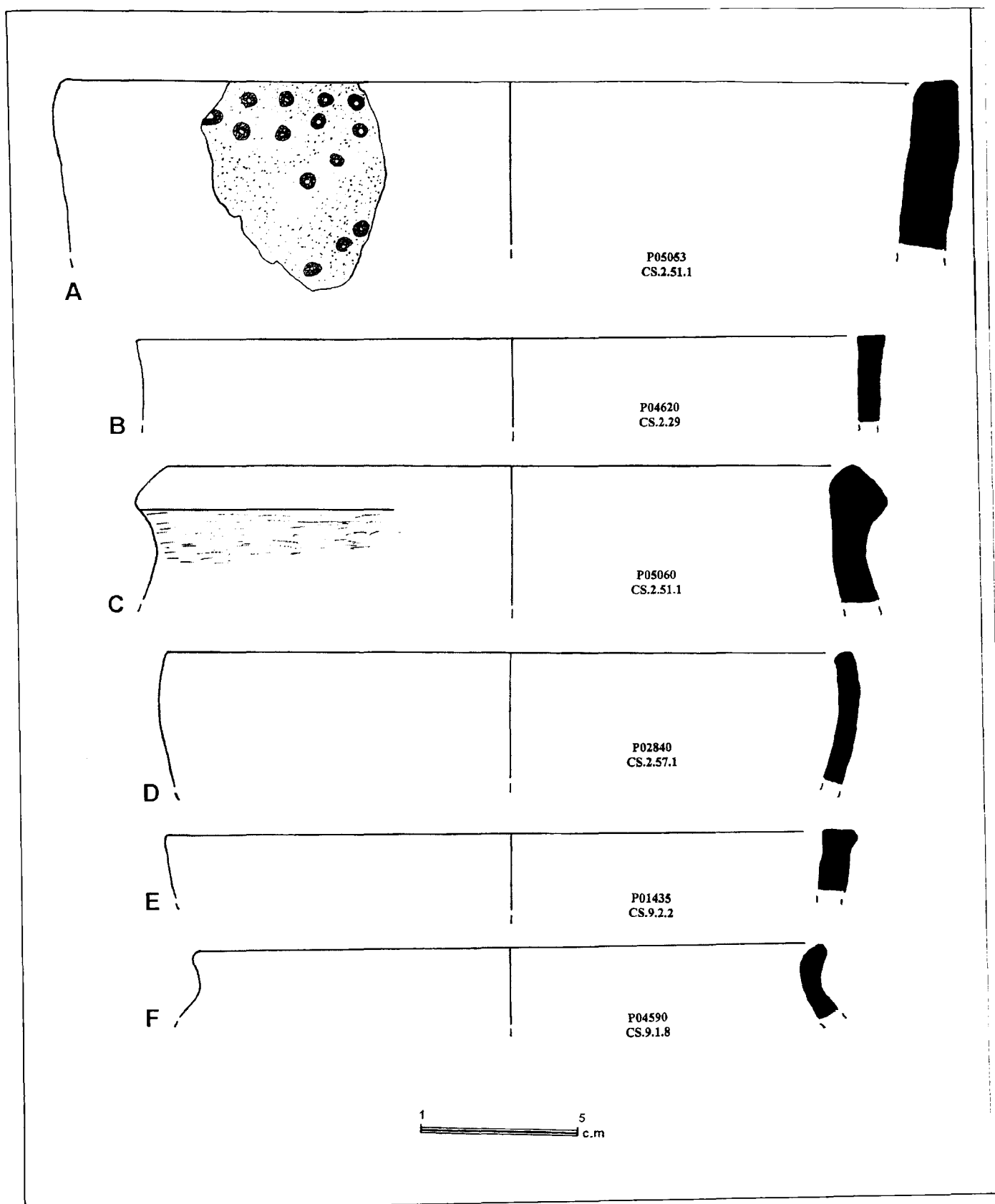


Figure 145 Late Iron Age vessel rims: CLIA (A-E) & TCLIA (F)

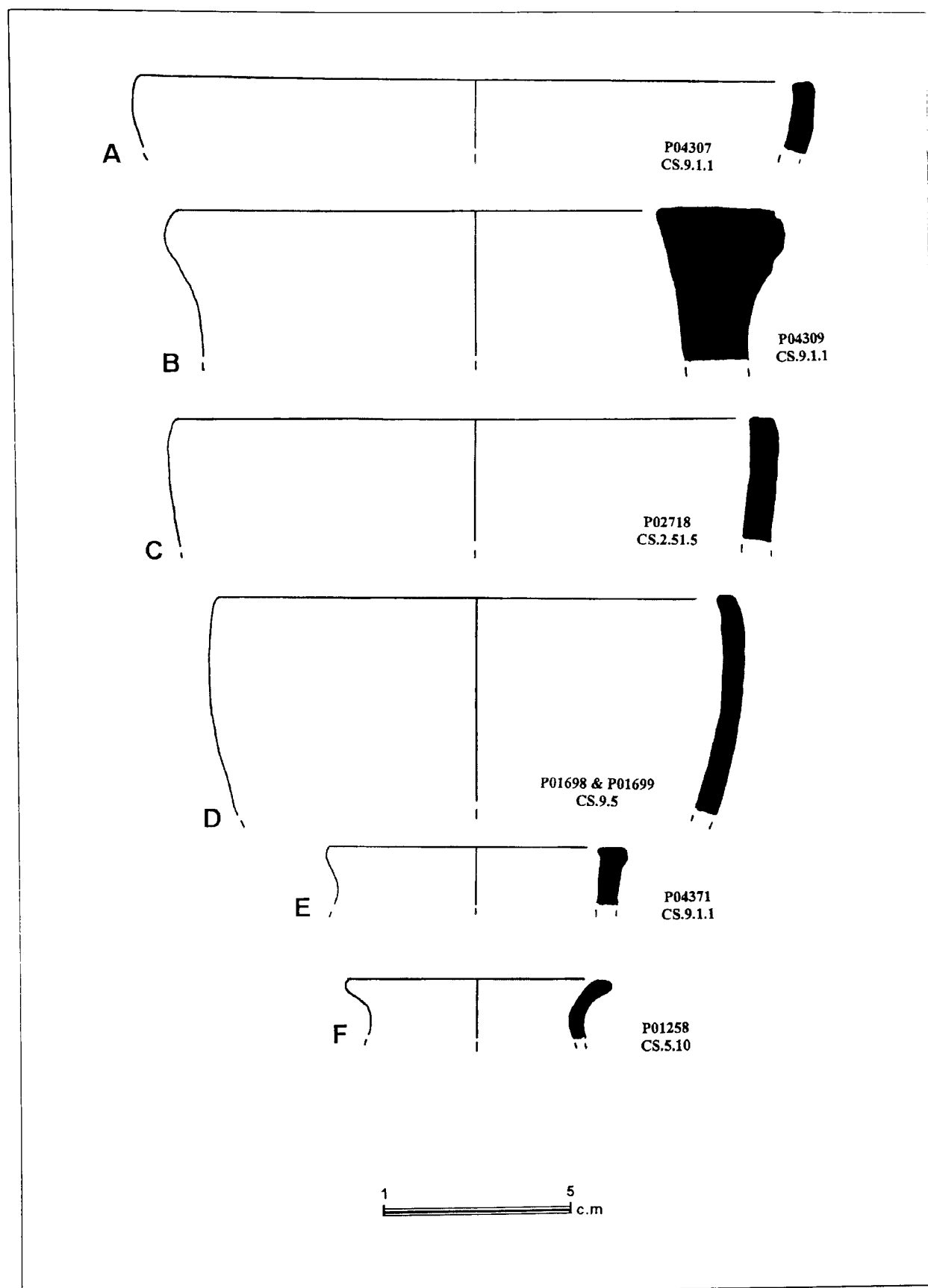


Figure 146 Late Iron Age vessel rims: LGCLIA (A-C), CGLIA (D) & FGLIA (E-F)

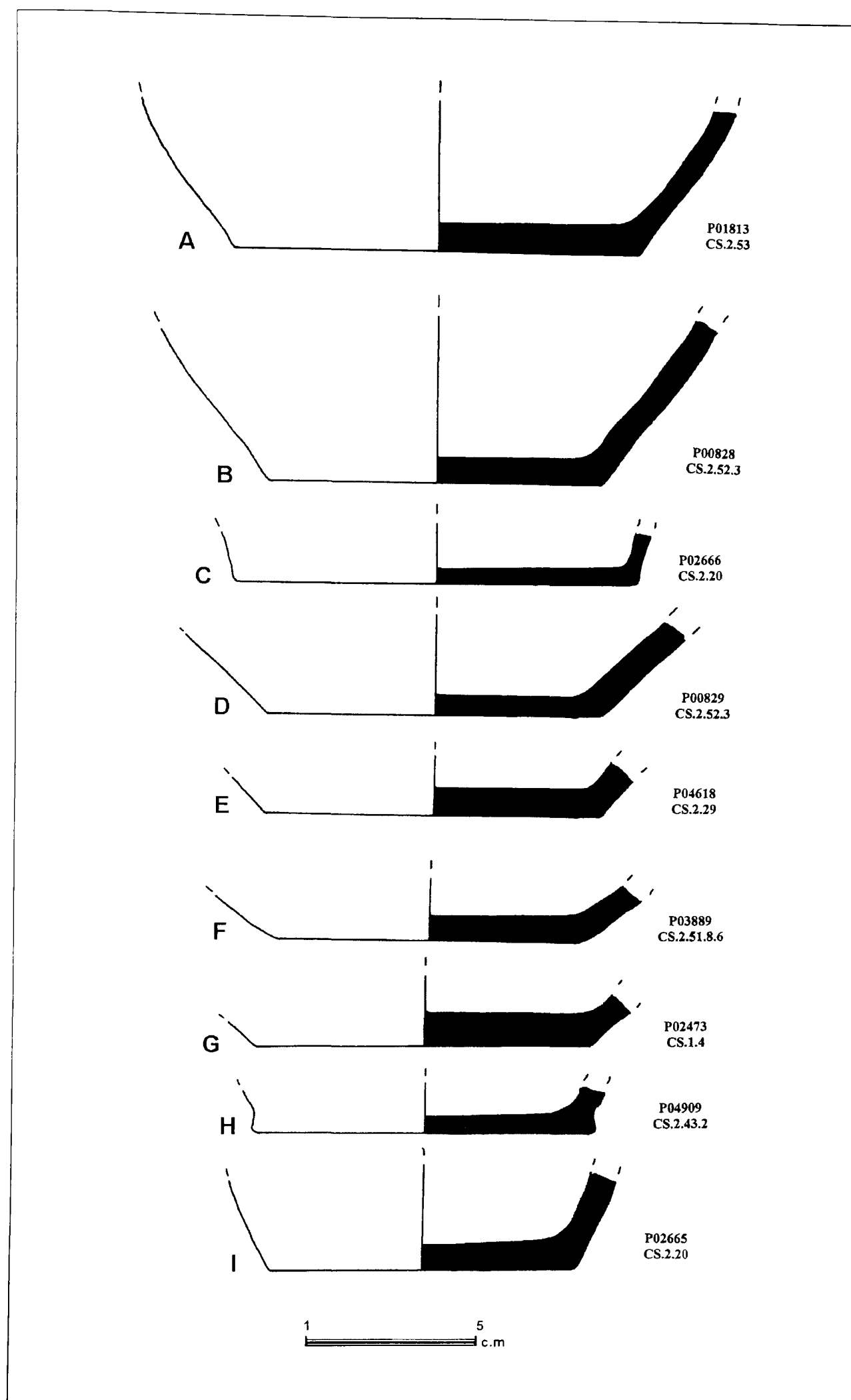


Figure 147 Late Iron Age vessel bases: CLIA (A, C, E, G, I), TCLIA (B, D, F) & DGCLIA (H)

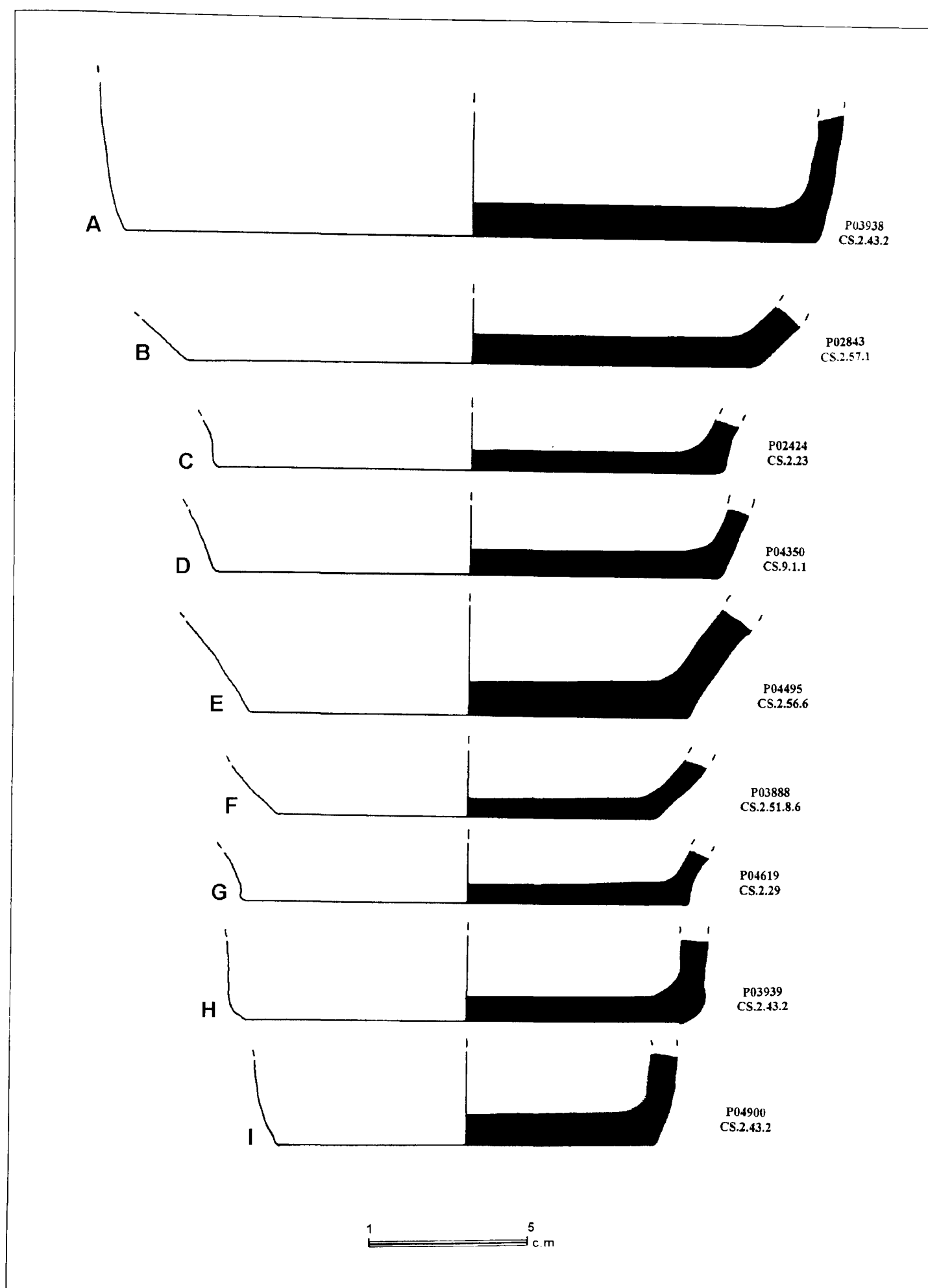


Figure 148 Late Iron Age vessel bases: CLIA (A, C, D, G-I), CRYLIR (B, E) & TCLIA (F)

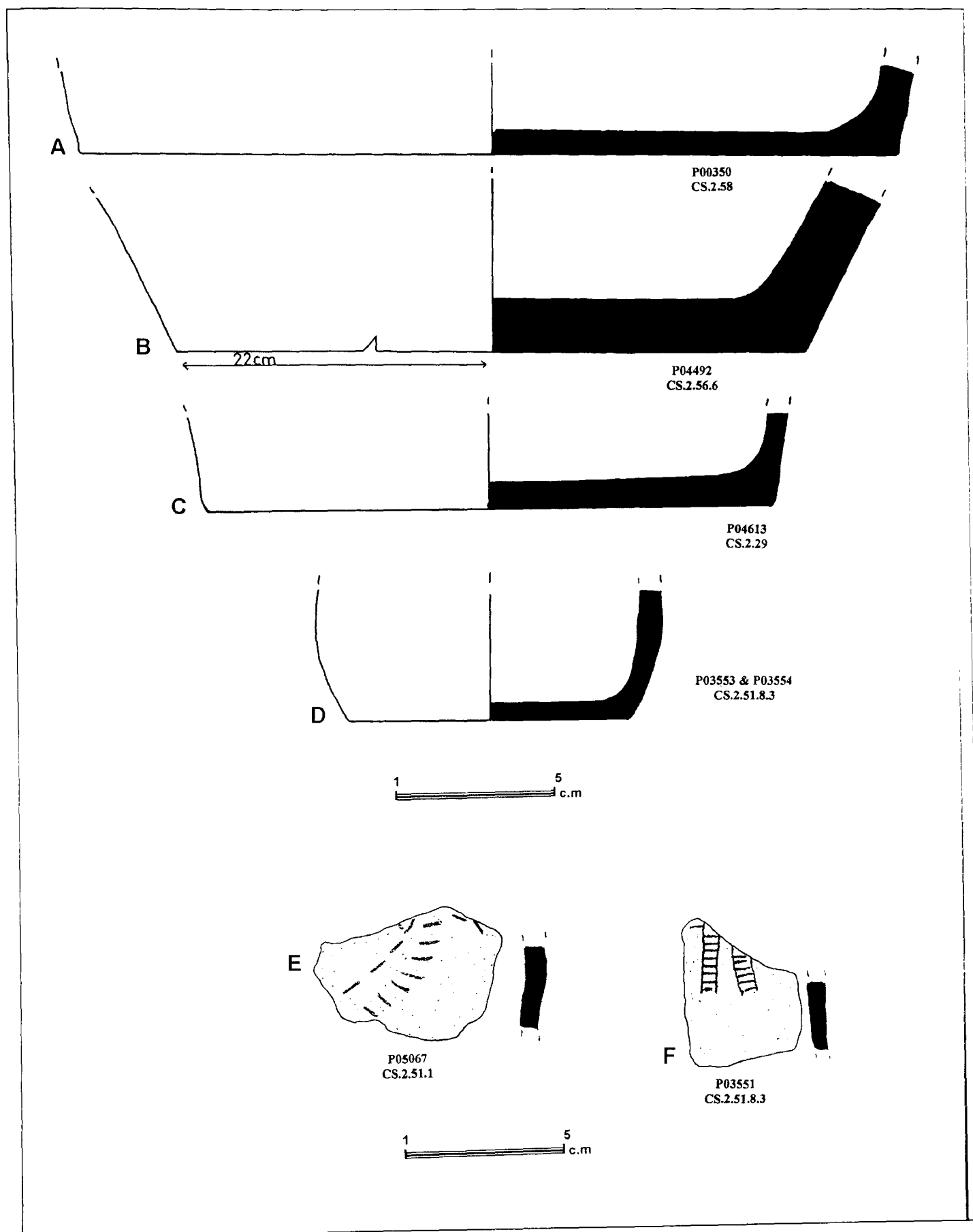


Figure 149 Late Iron Age vessel bases: LGCLIA (A-C), and body sherds: CGLIA (E-F)

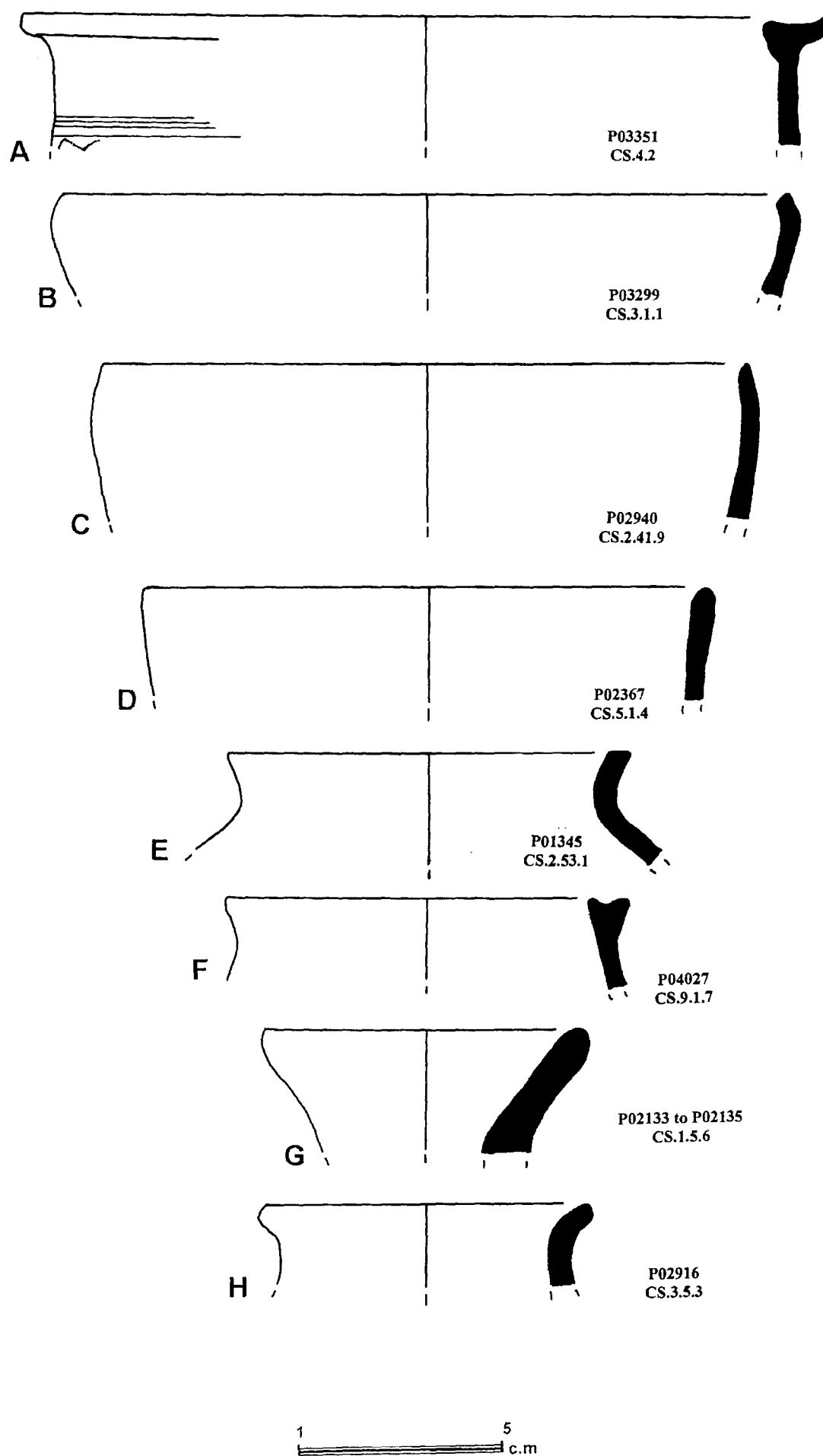


Figure 150 Middle Islamic vessel rims: CMI (A-H)

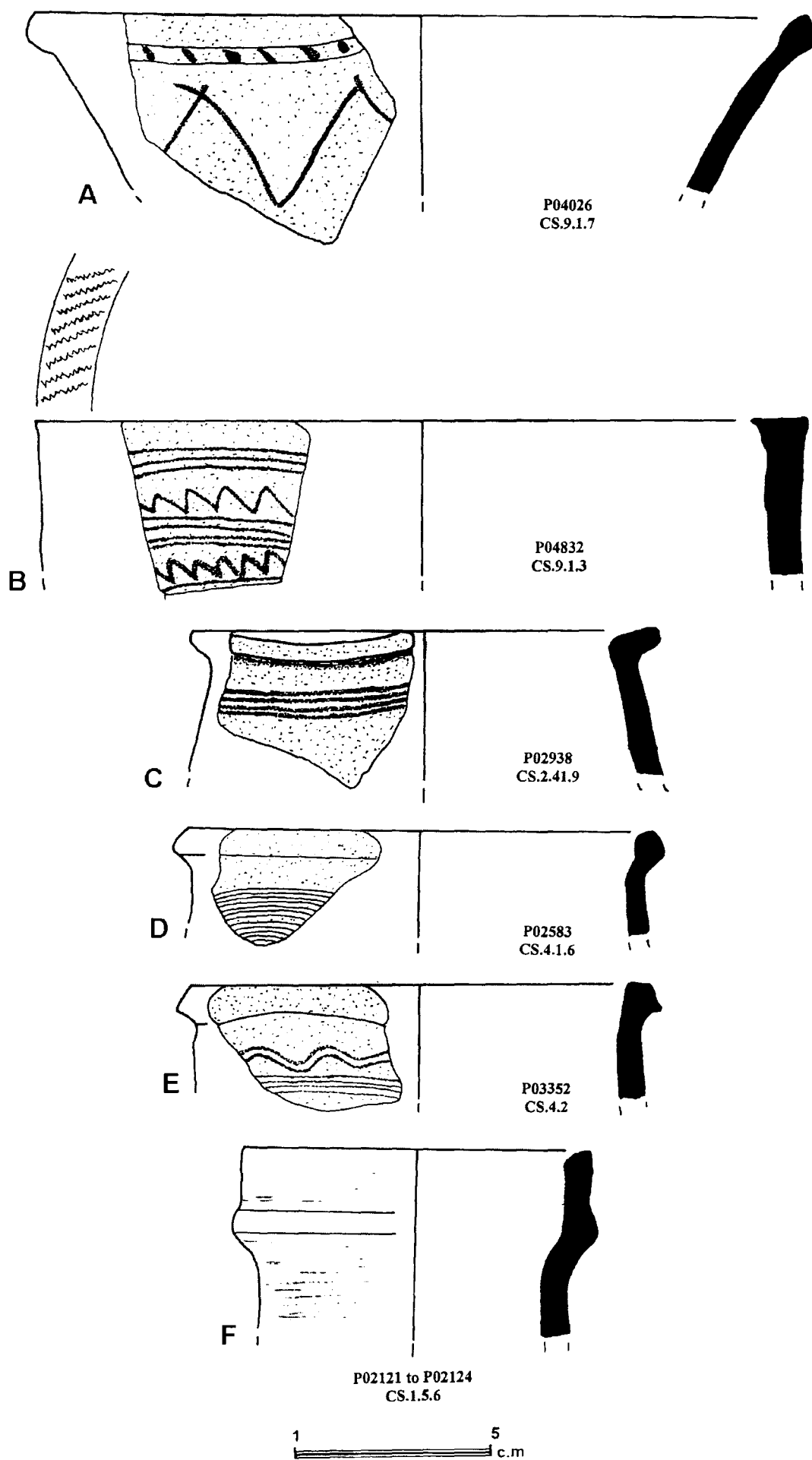


Figure 151 Middle Islamic vessel rims: CMI (A-F)

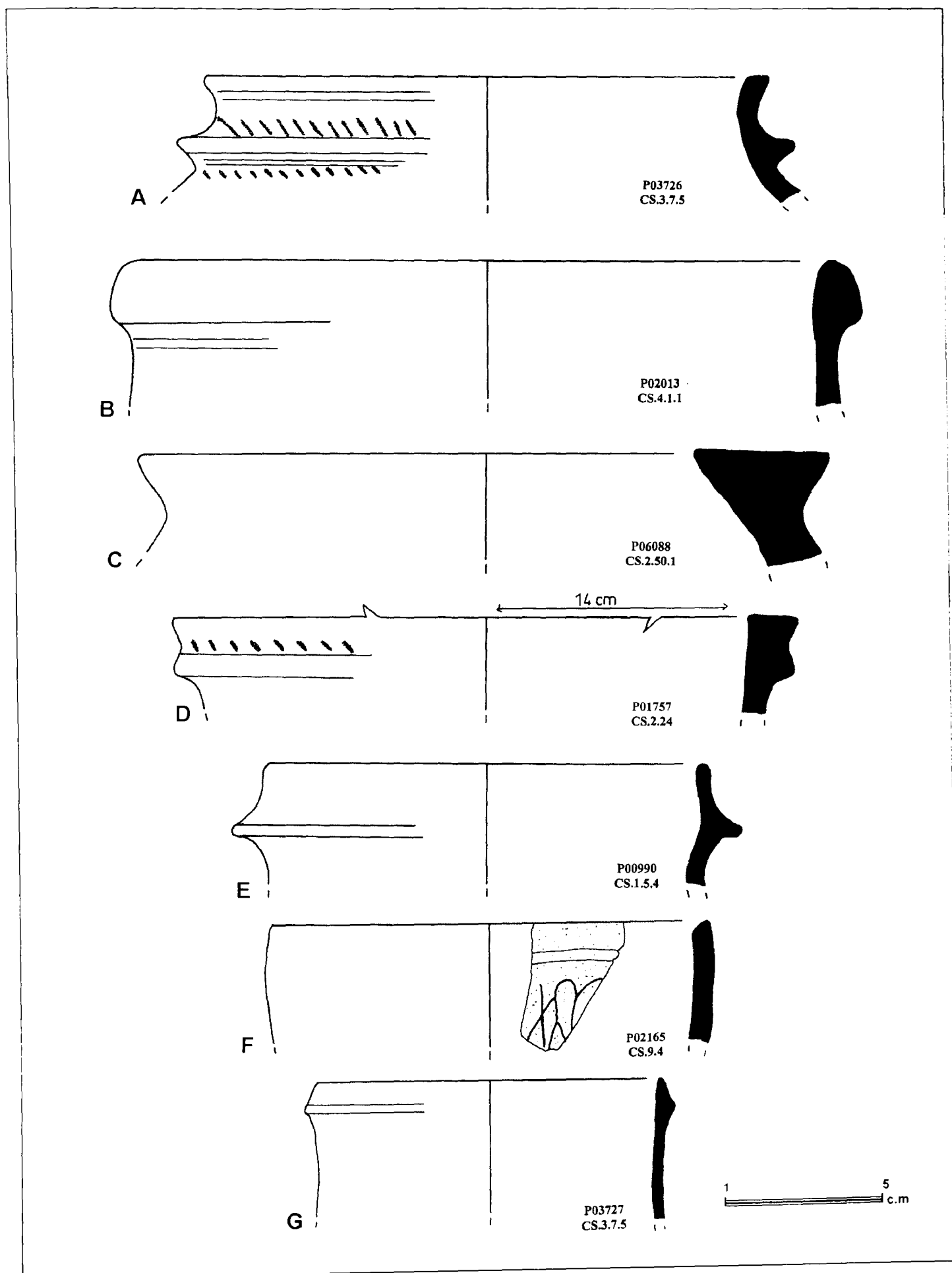


Figure 152 Middle Islamic vessel rims: GWMI (A), VCGMI (B-E), SGRF (F) & YCWMI (G)

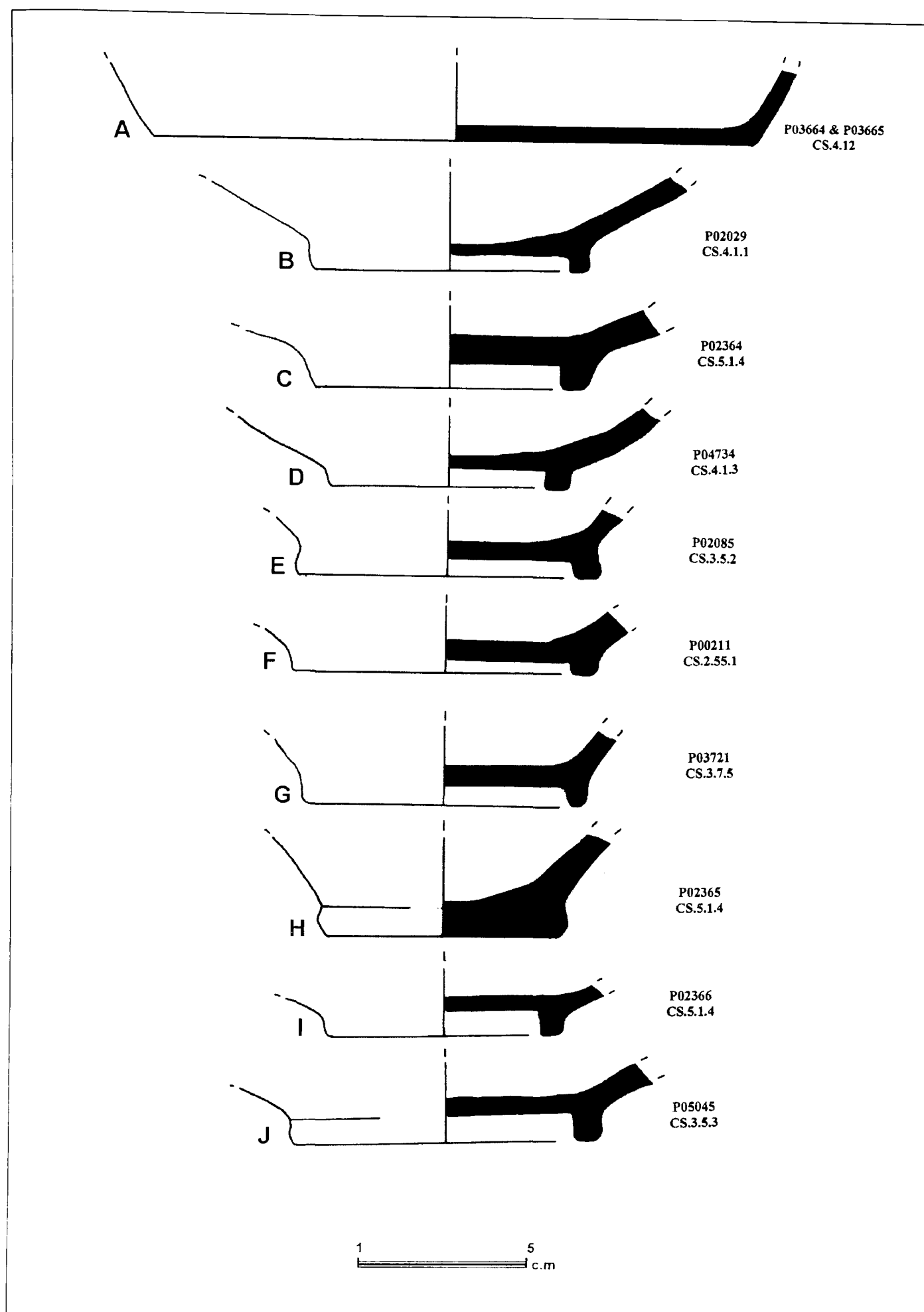


Figure 153 Middle Islamic vessel bases: CMI (A-J)

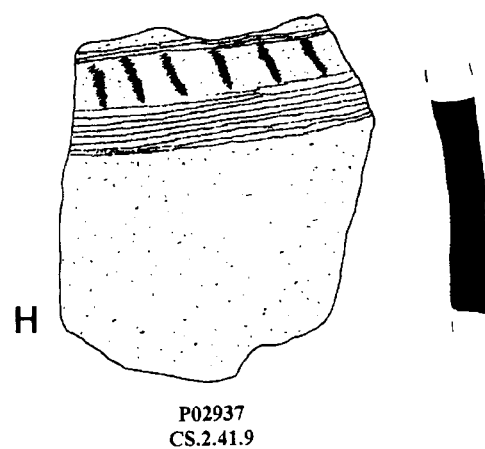
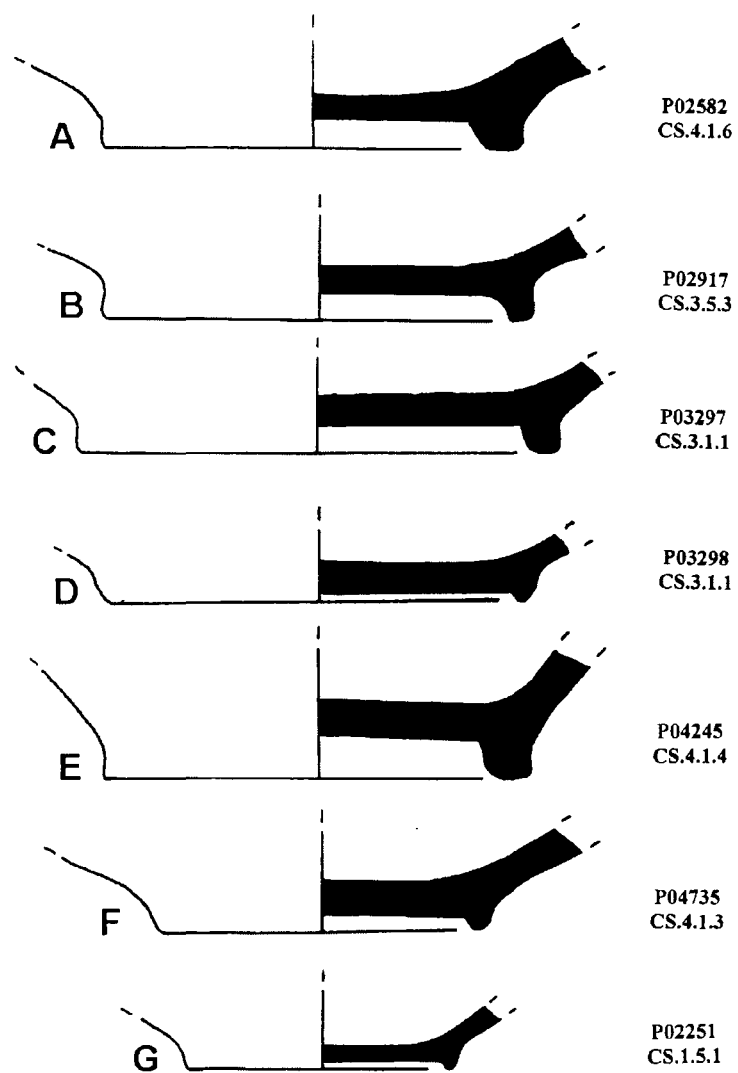


Figure 154 Middle Islamic vessel bases: CMI (A-G) & body sherd: CMI (H)

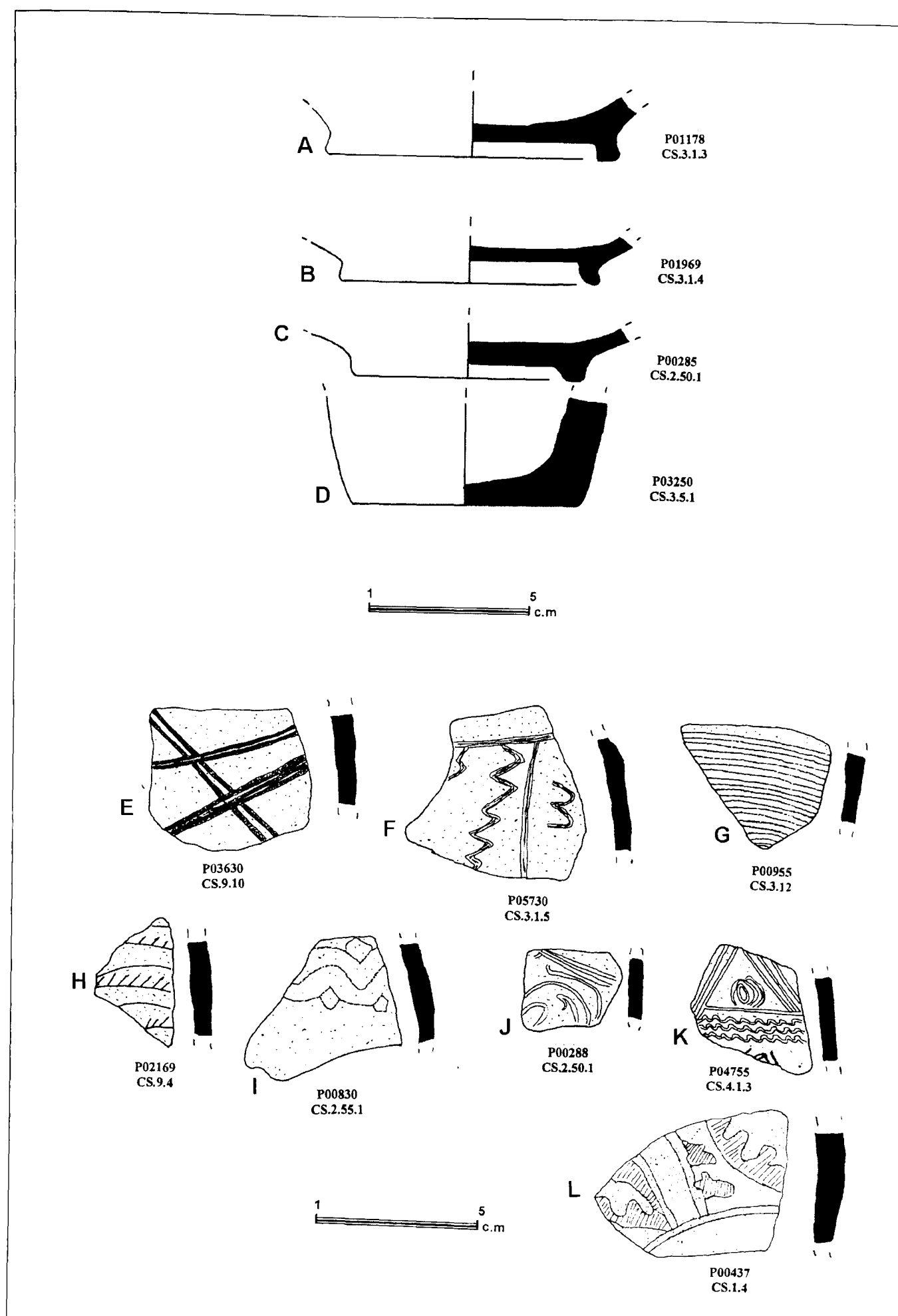


Figure 155 Middle Islamic vessel bases: GWMI (A-B), SGRF (C) & YCWMI (D); and body sherds: GWMI (E-G, K) & SGRF (H-J, L)

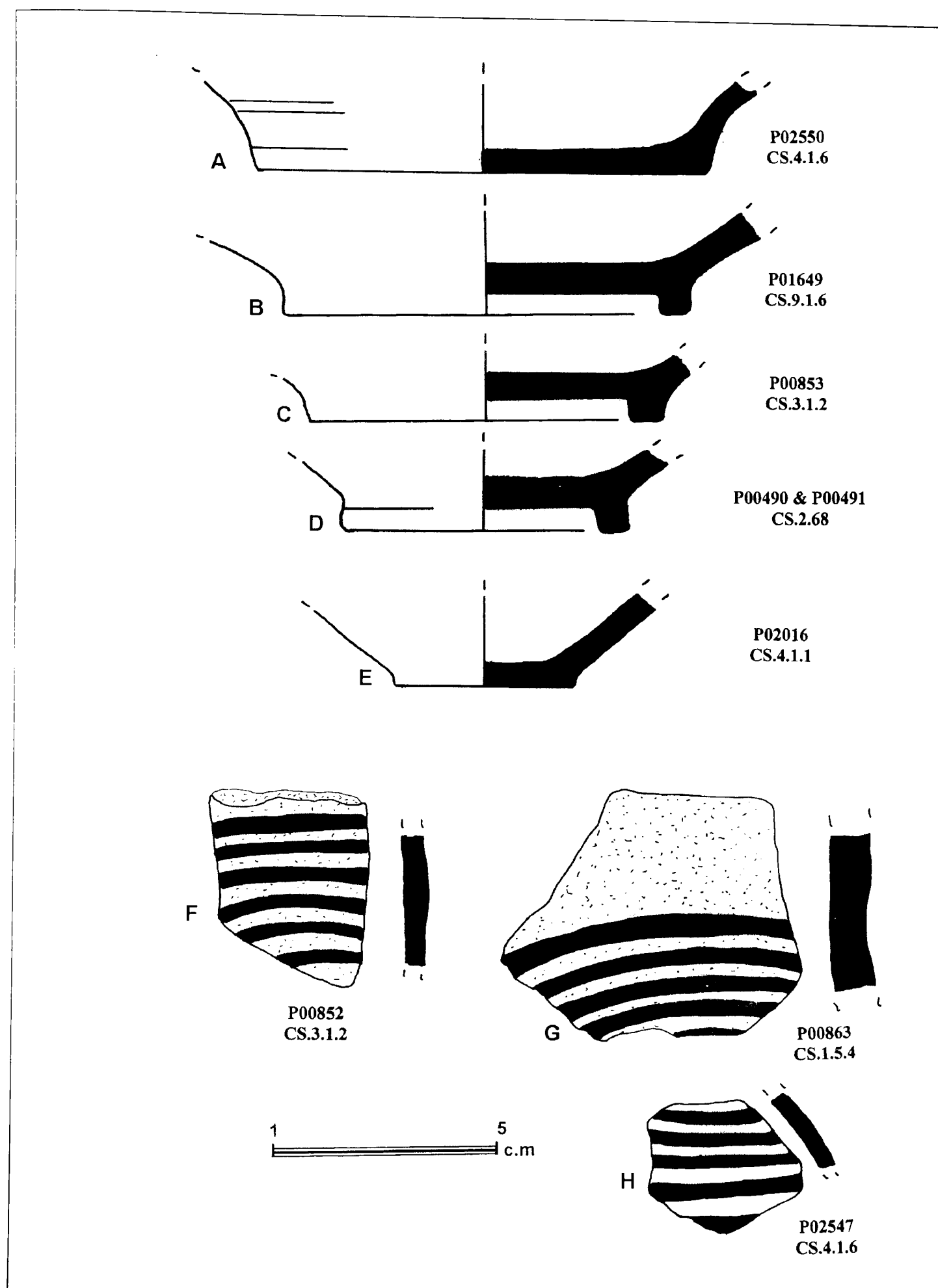


Figure 156 Nabhani Middle Islamic vessel bases (A-E), and body sherds (F-H)

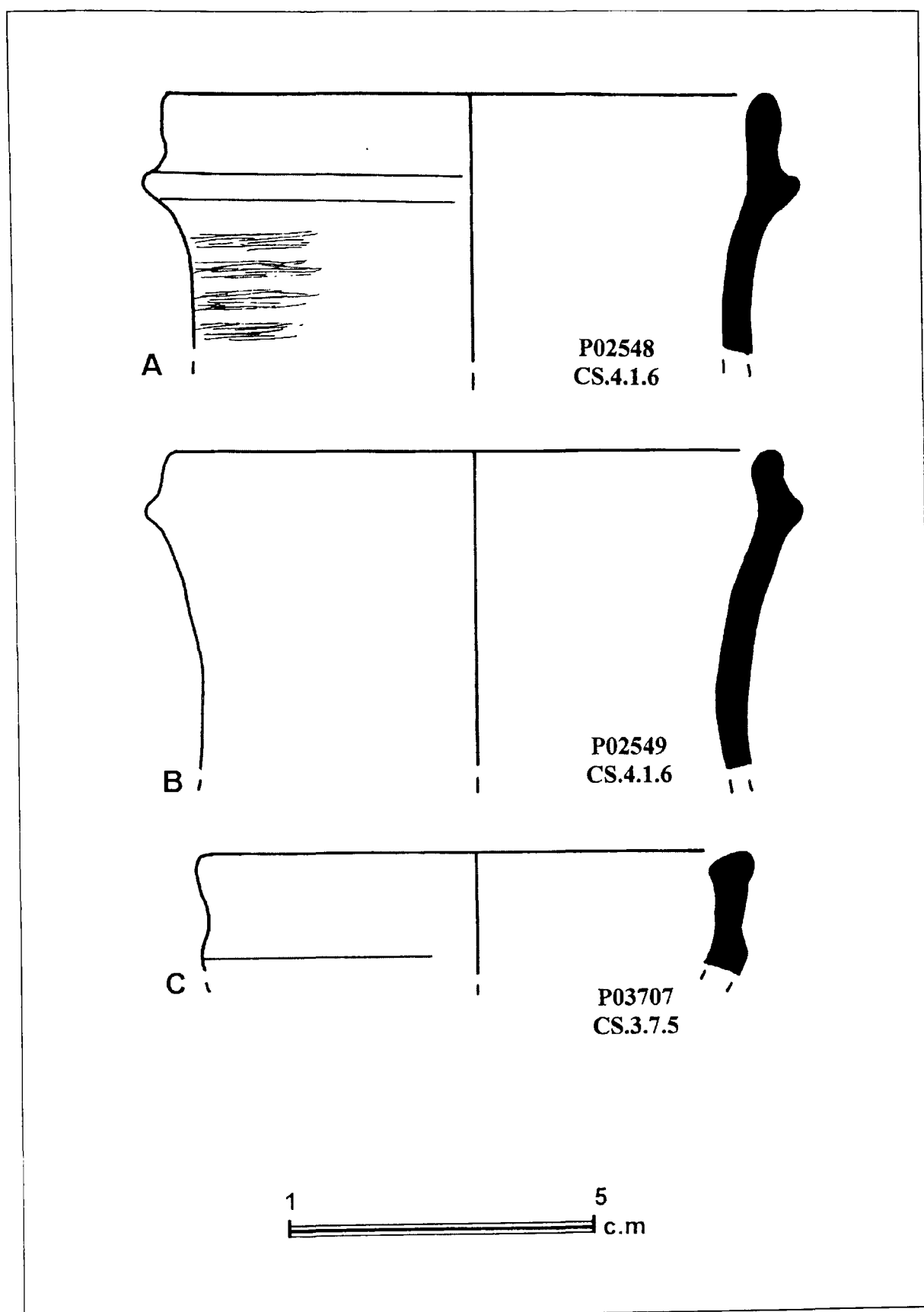
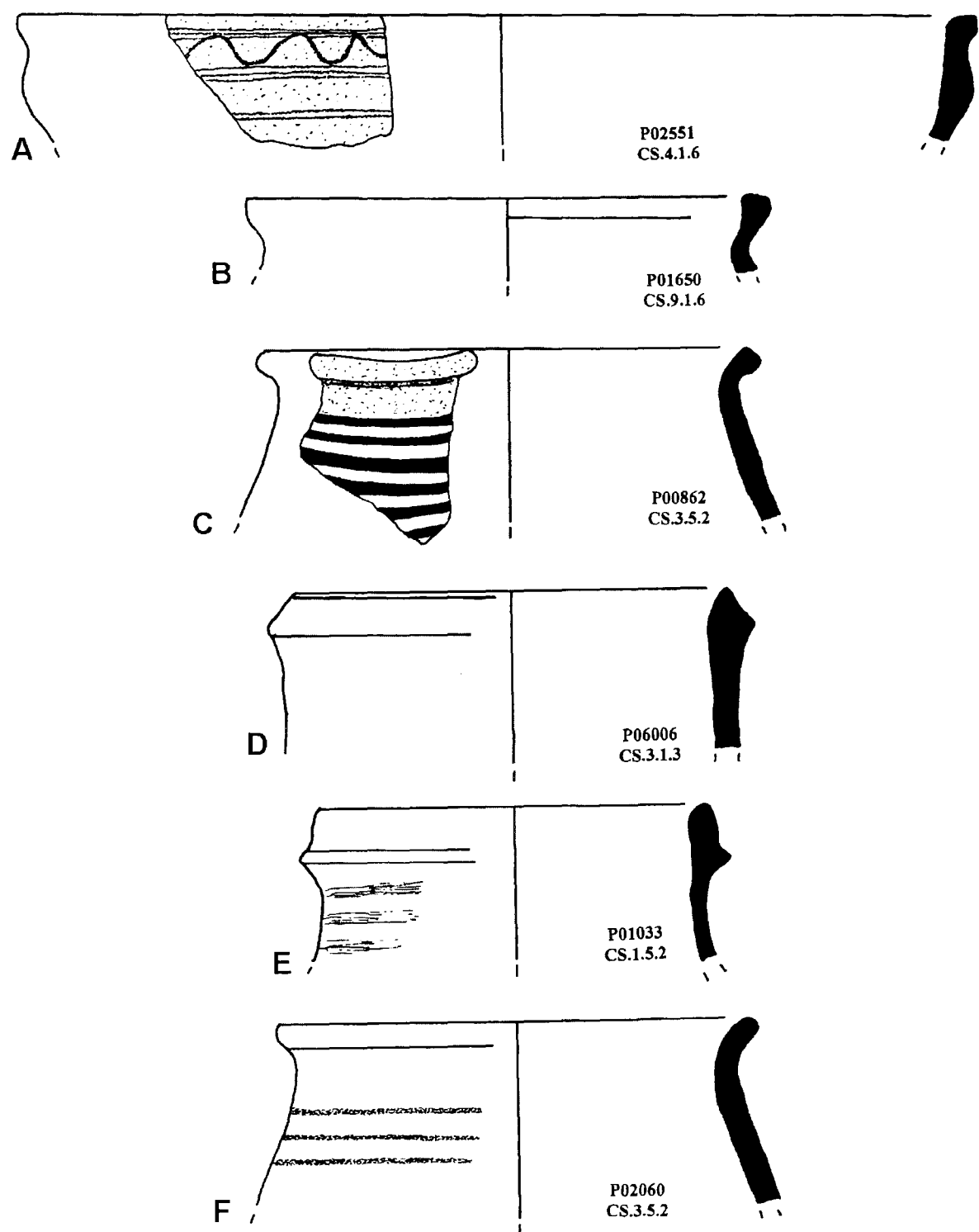
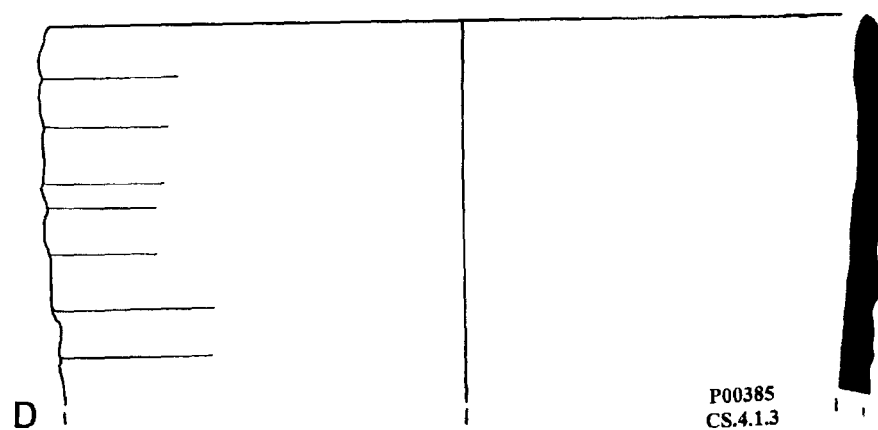
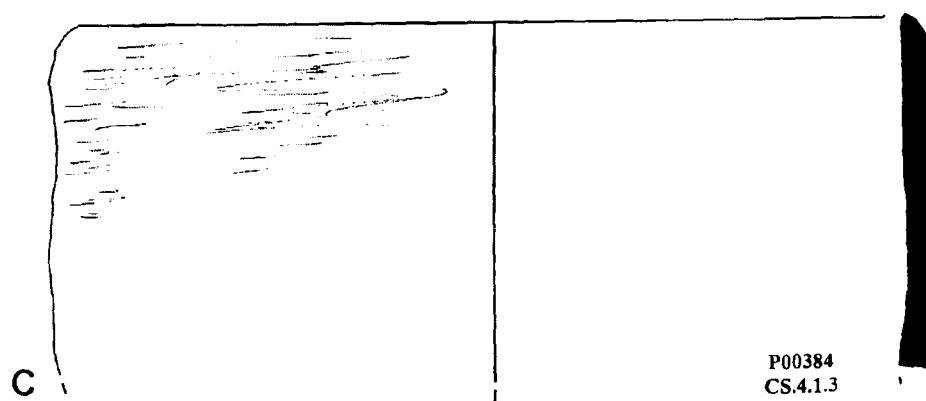
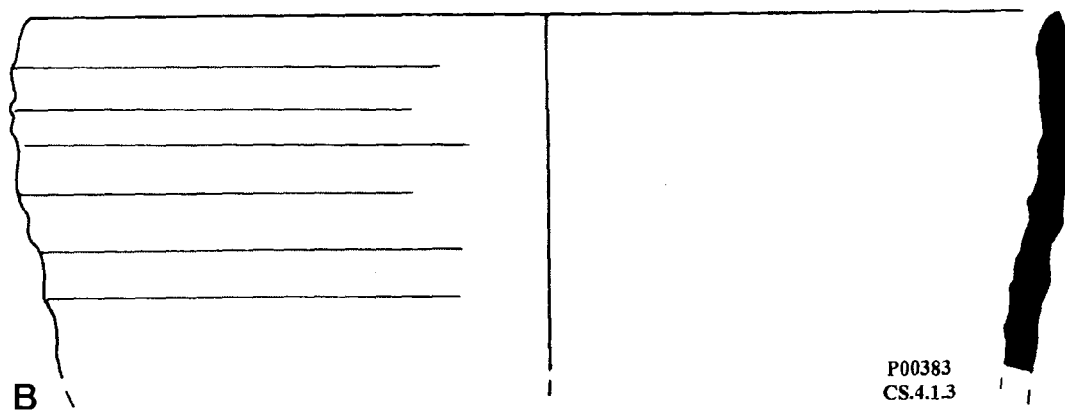
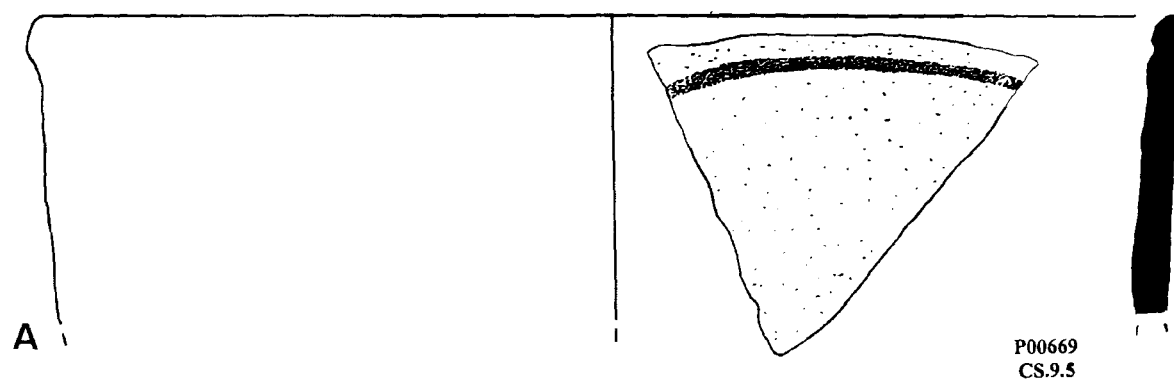


Figure 157 Nabhani Middle Islamic vessel rims (A-C)



1 5
c.m

Figure 158 Nabhani Middle Islamic vessel rims (A-F)



Bahla ware rims

1 5
c.m

Figure 159 Bahla Late Islamic vessel rims (A-D)

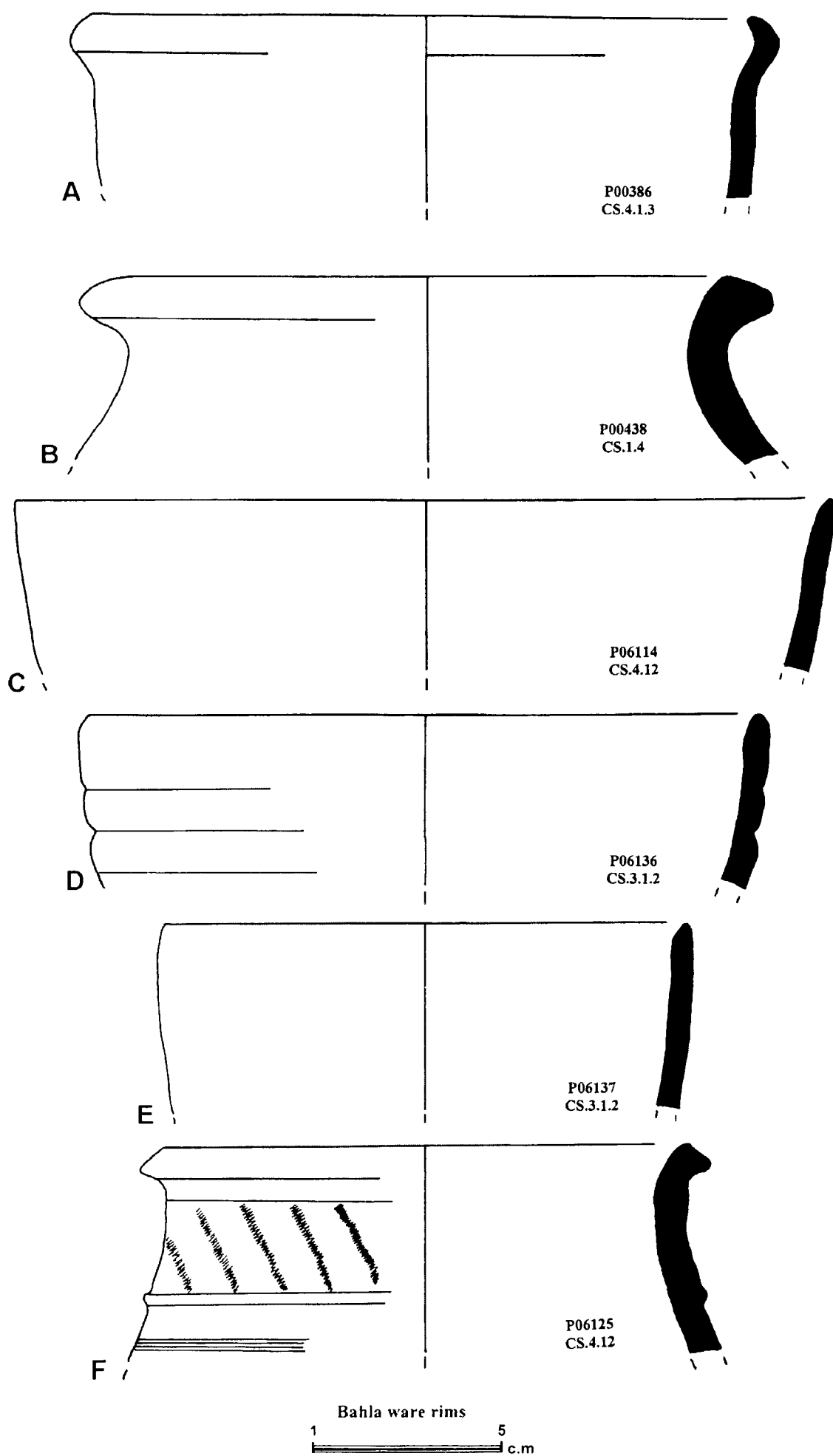


Figure 160 Bahla Late Islamic vessel rims (A-F)

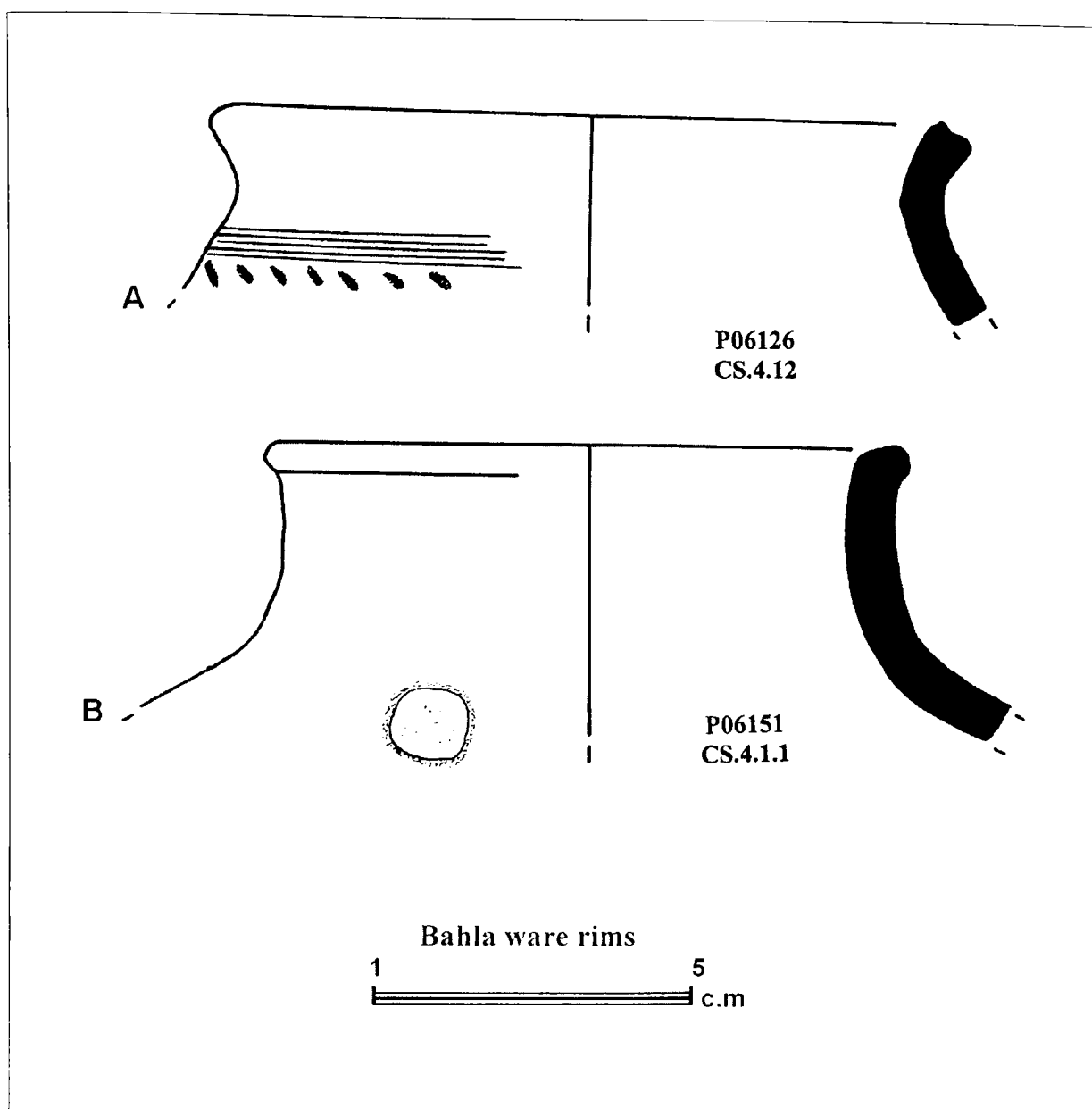


Figure 161 Bahla Late Islamic vessel rims (A-B)

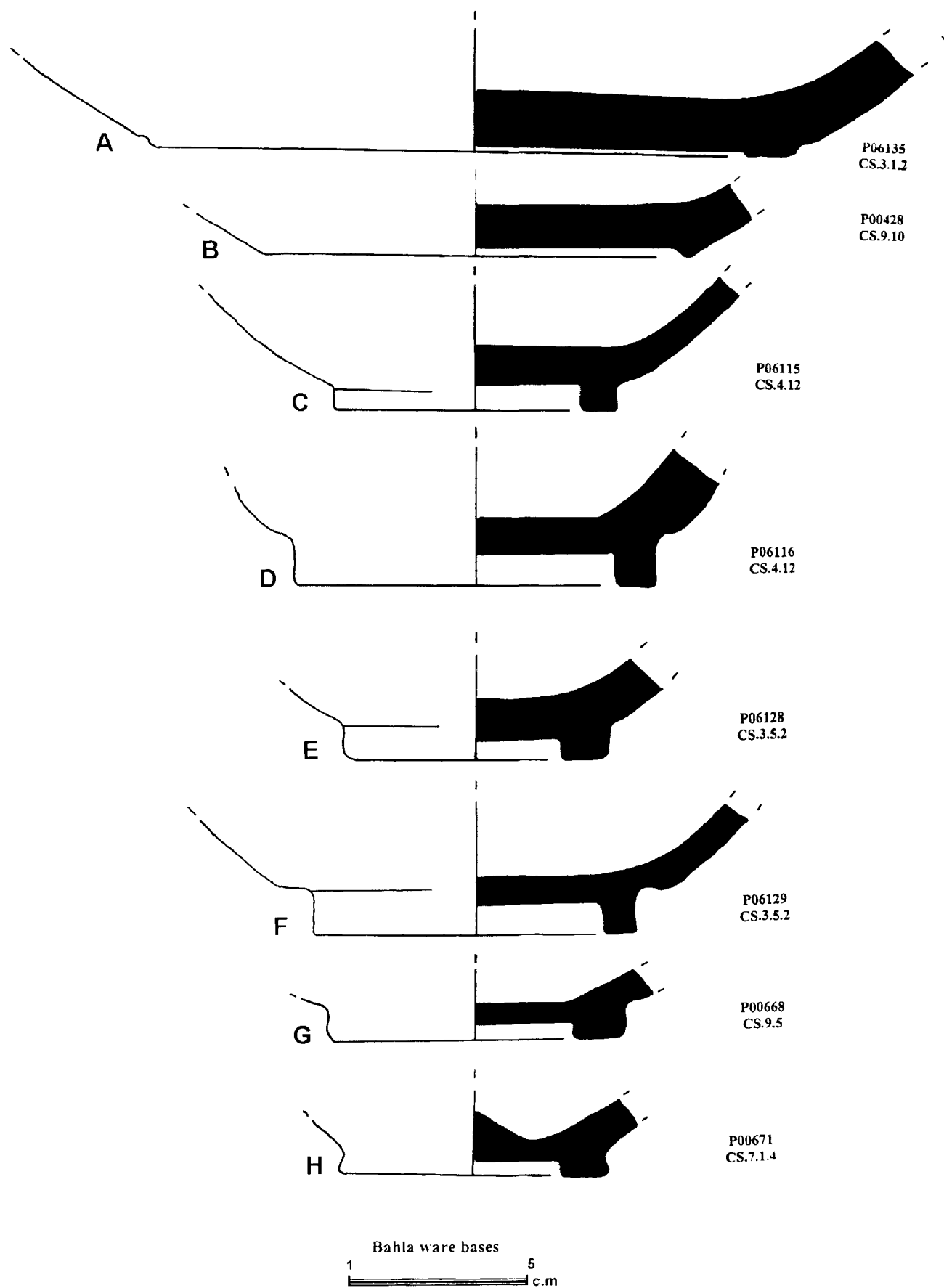
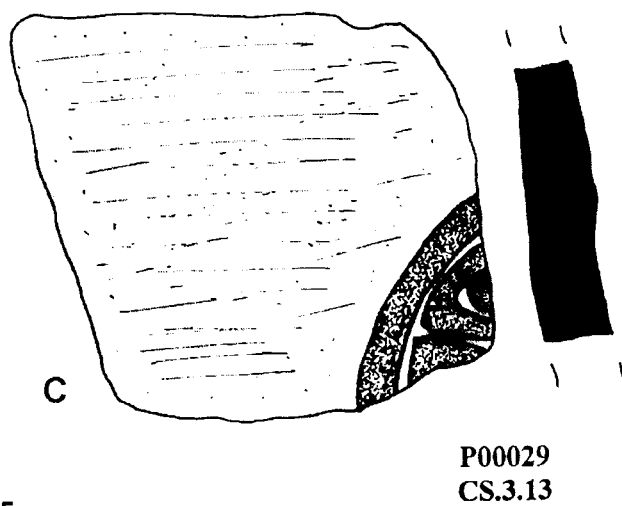
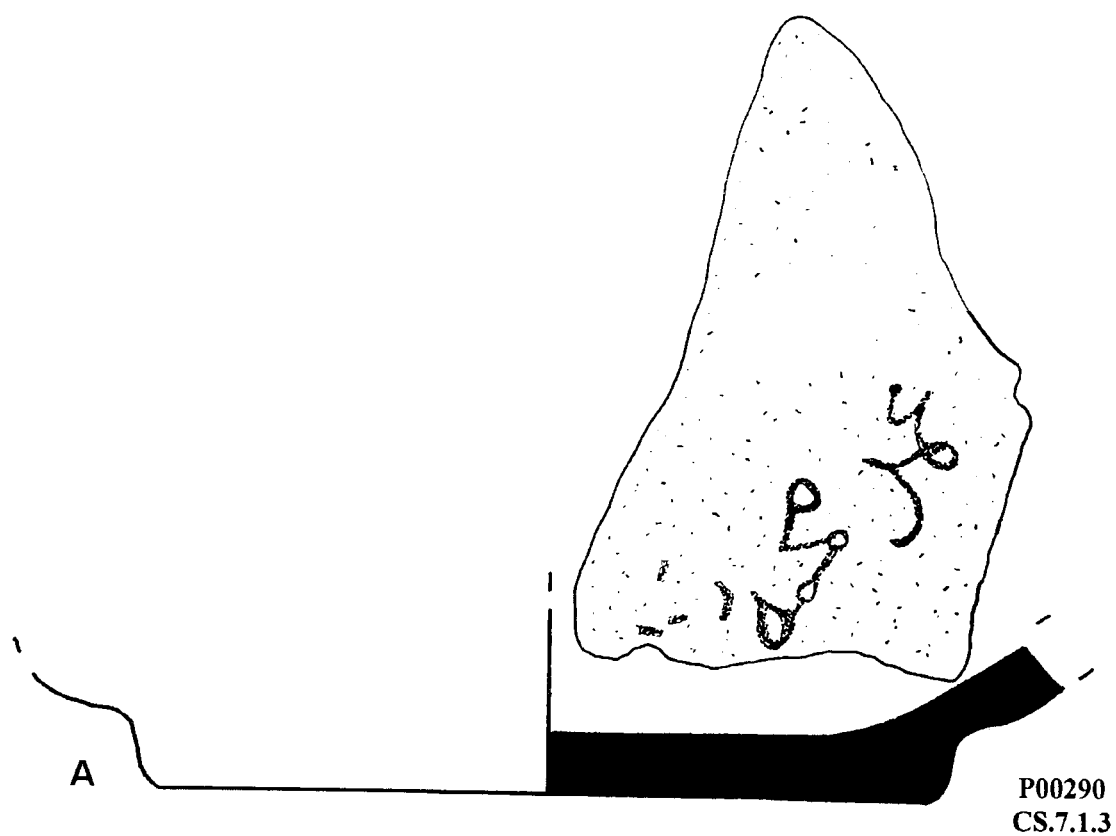


Figure 162 Bahla Late Islamic vessel bases (A-H)



Bahla ware bases
1 5
c.m

Figure 163 Bahla Late Islamic vessel bases (A-C)

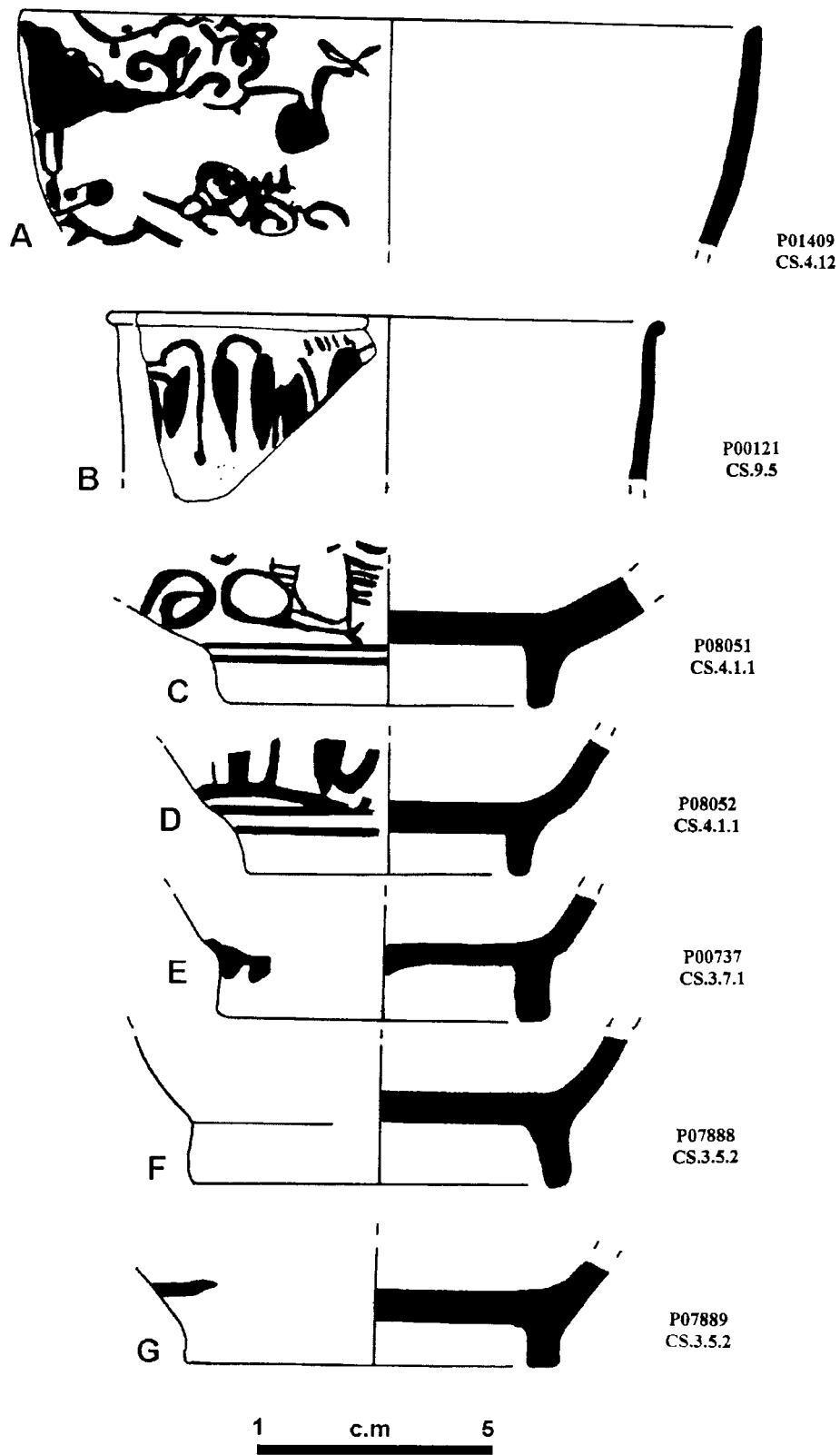


Figure 164 Chinese Blue-and-White Late Islamic bowl rims and bases (A-G)

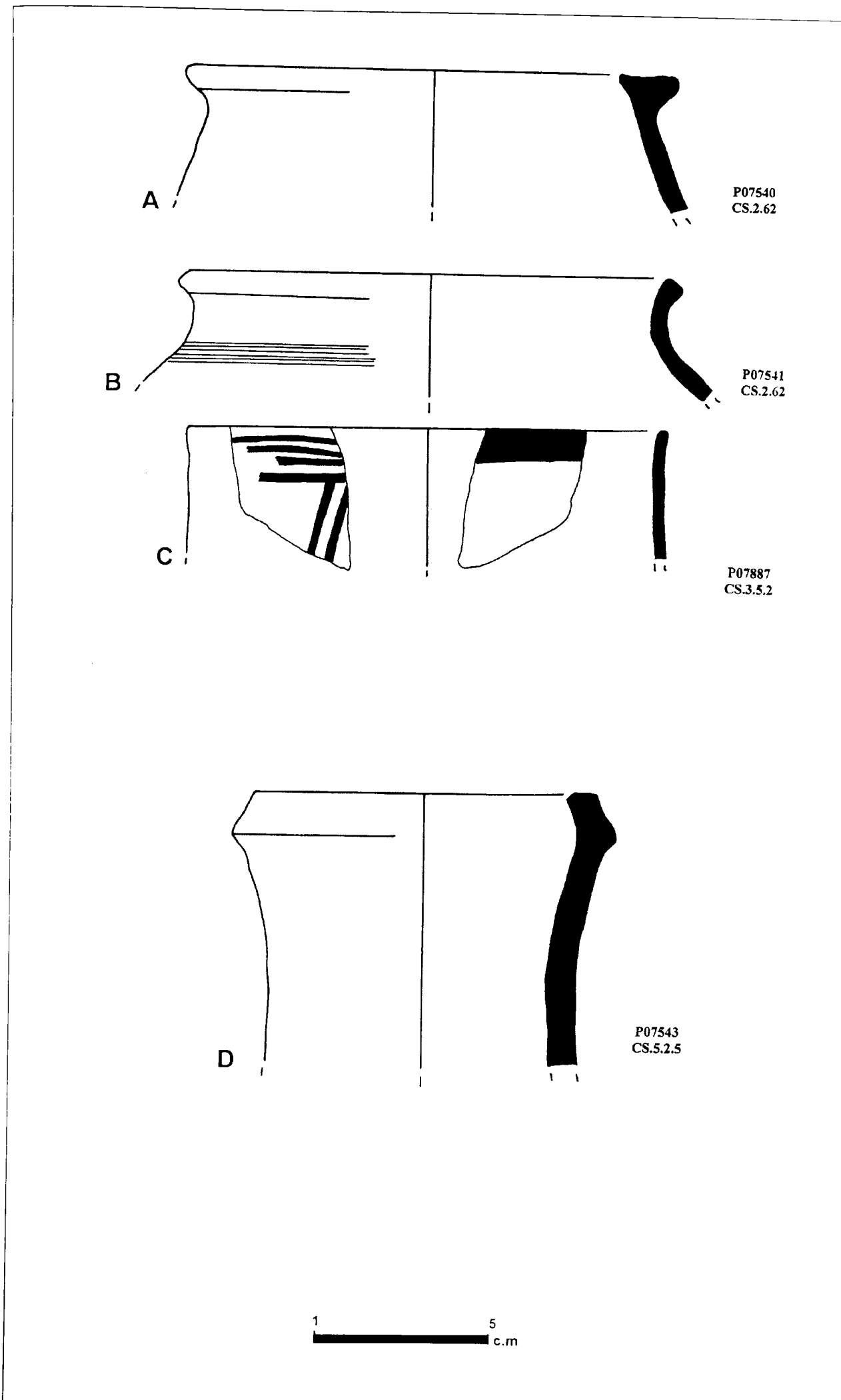
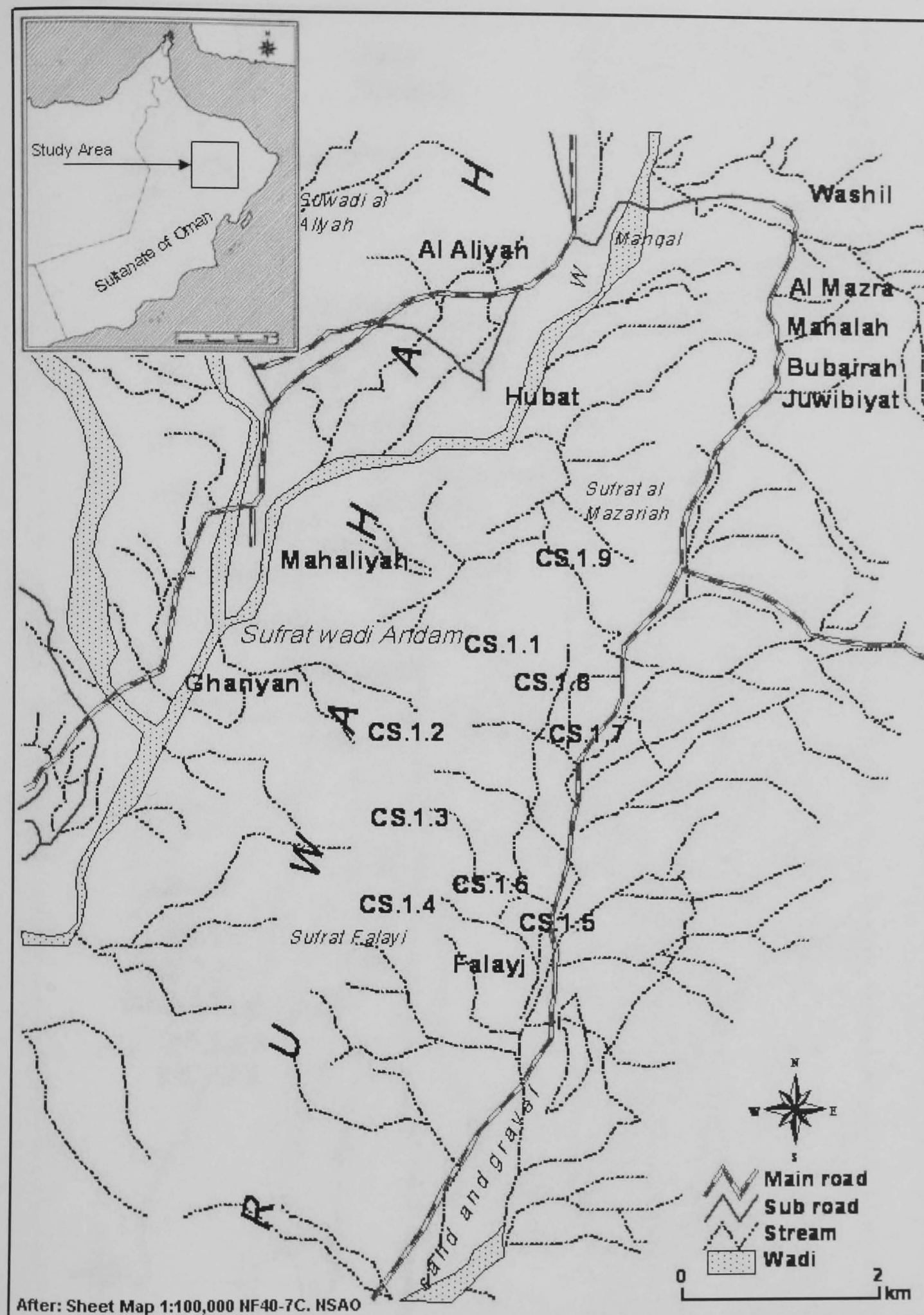
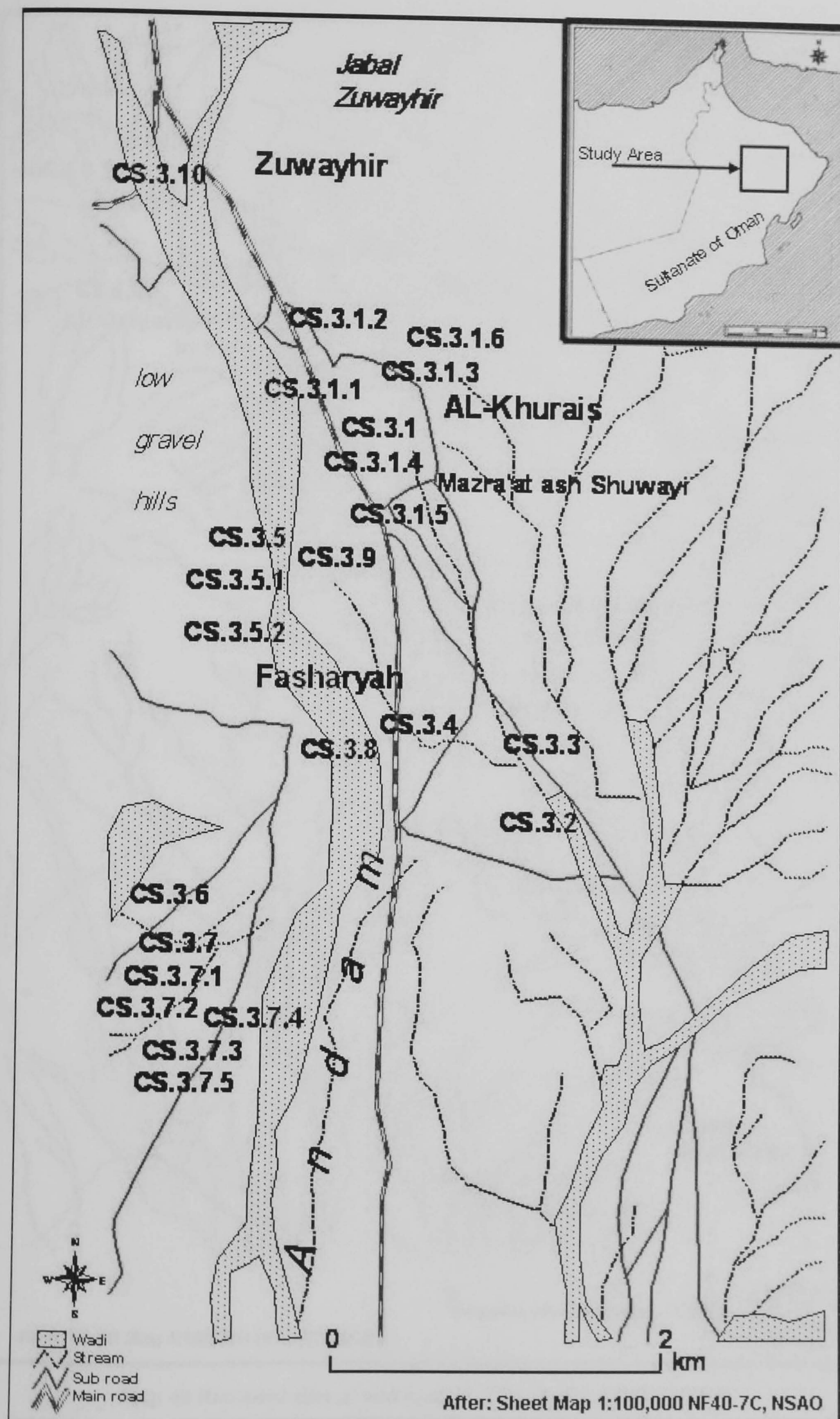


Figure 165 Late Islamic vessel rims: Julfar (A-B), Chinese Blue-and-White bowl rim (C) & White Ware (D)

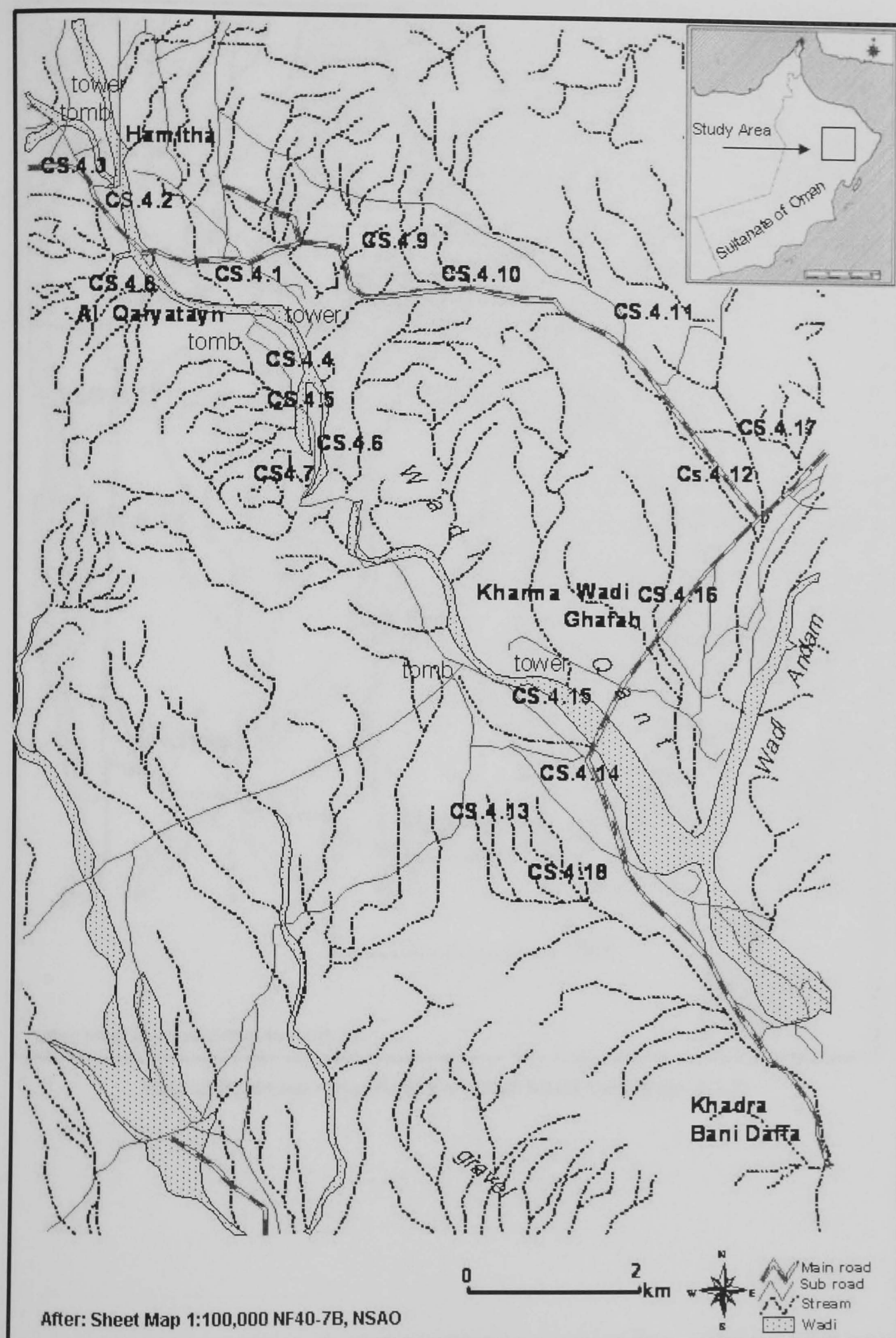
MAPS



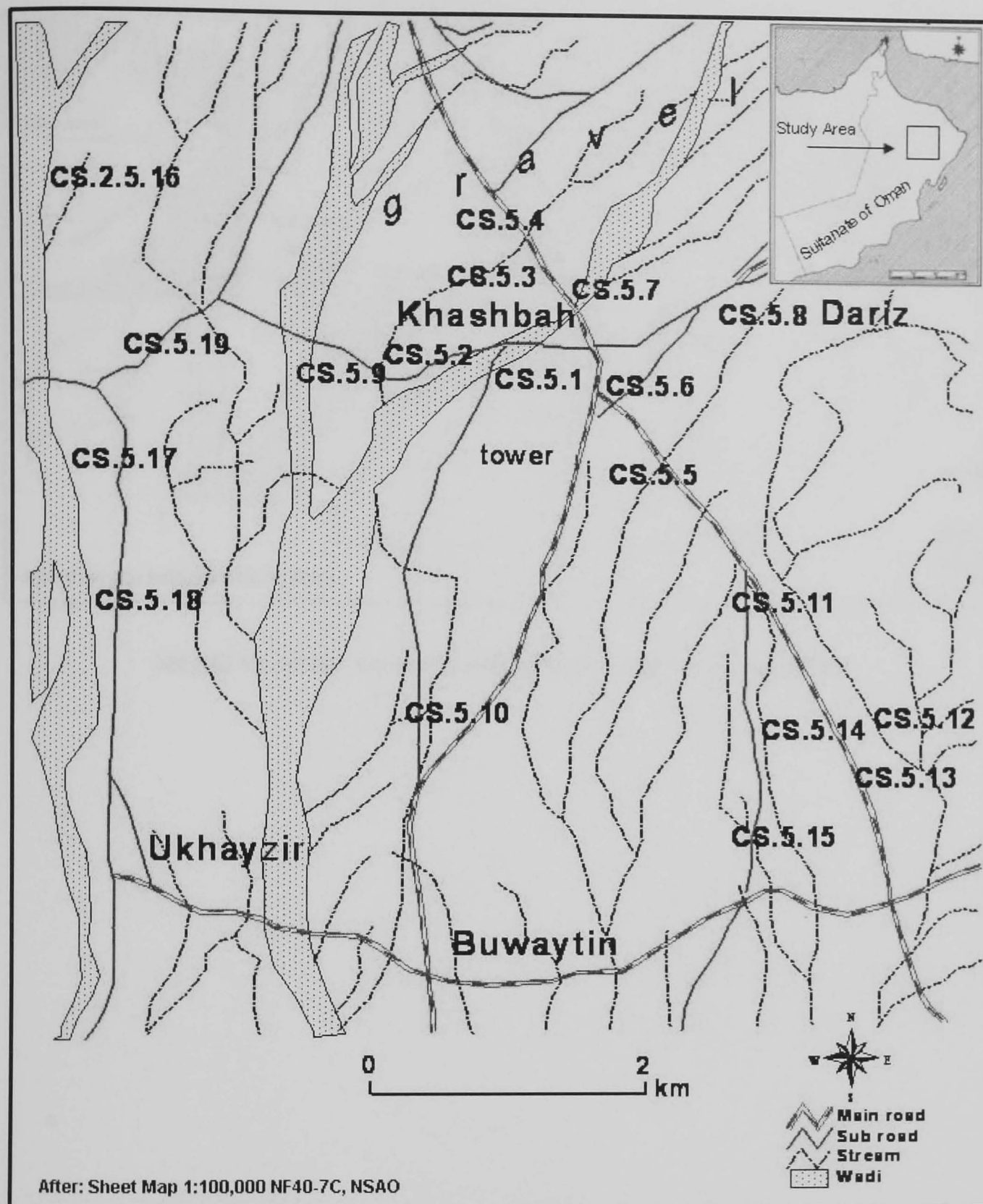
Map 38 Recorded sites at and around al-Fulayj village (CS.1)



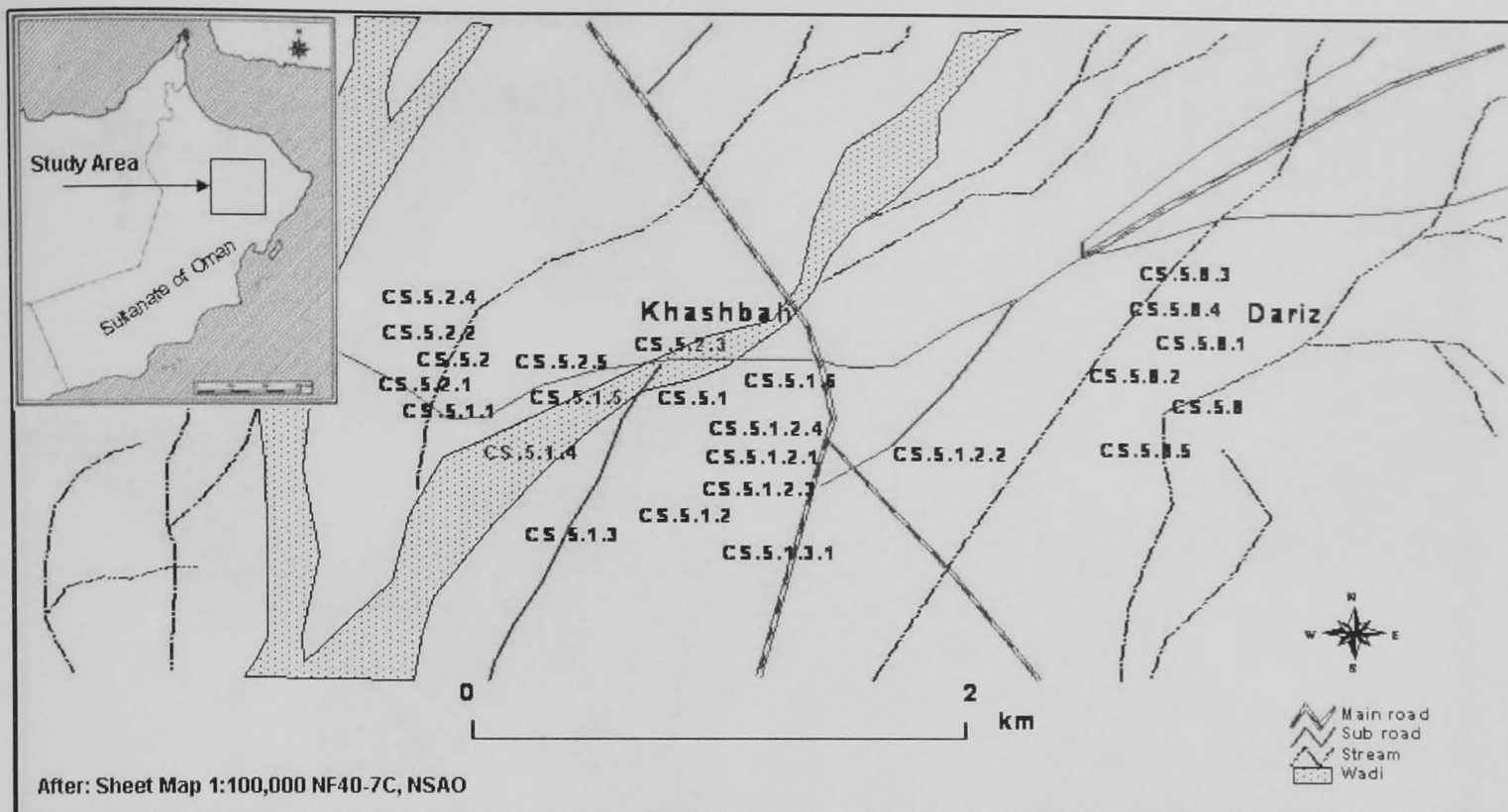
Map 39 Recorded sites at and around al-Khurai's village (CS.3)

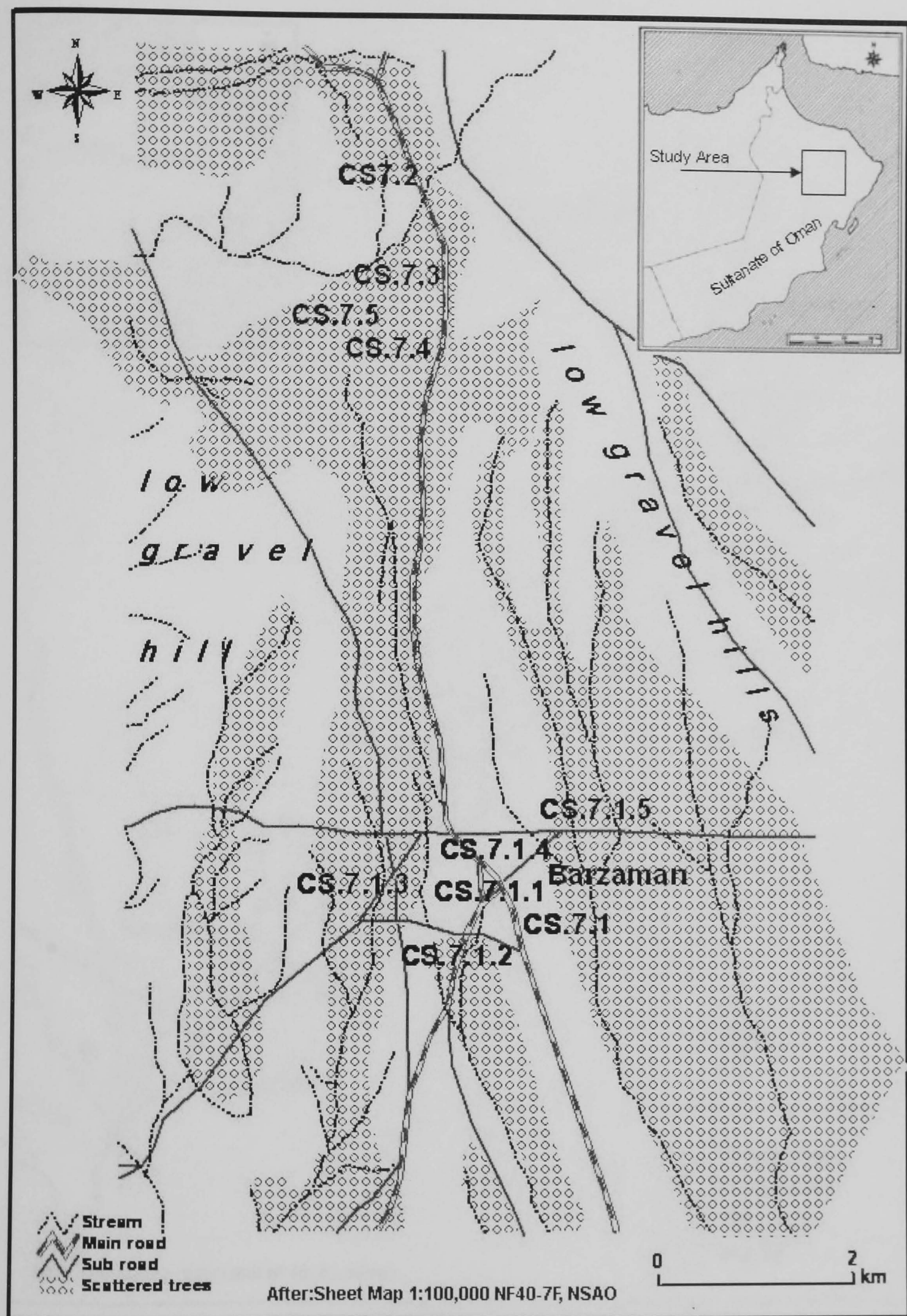


Map 40 Recorded sites at and around al-Qaryatayn village (CS.4)

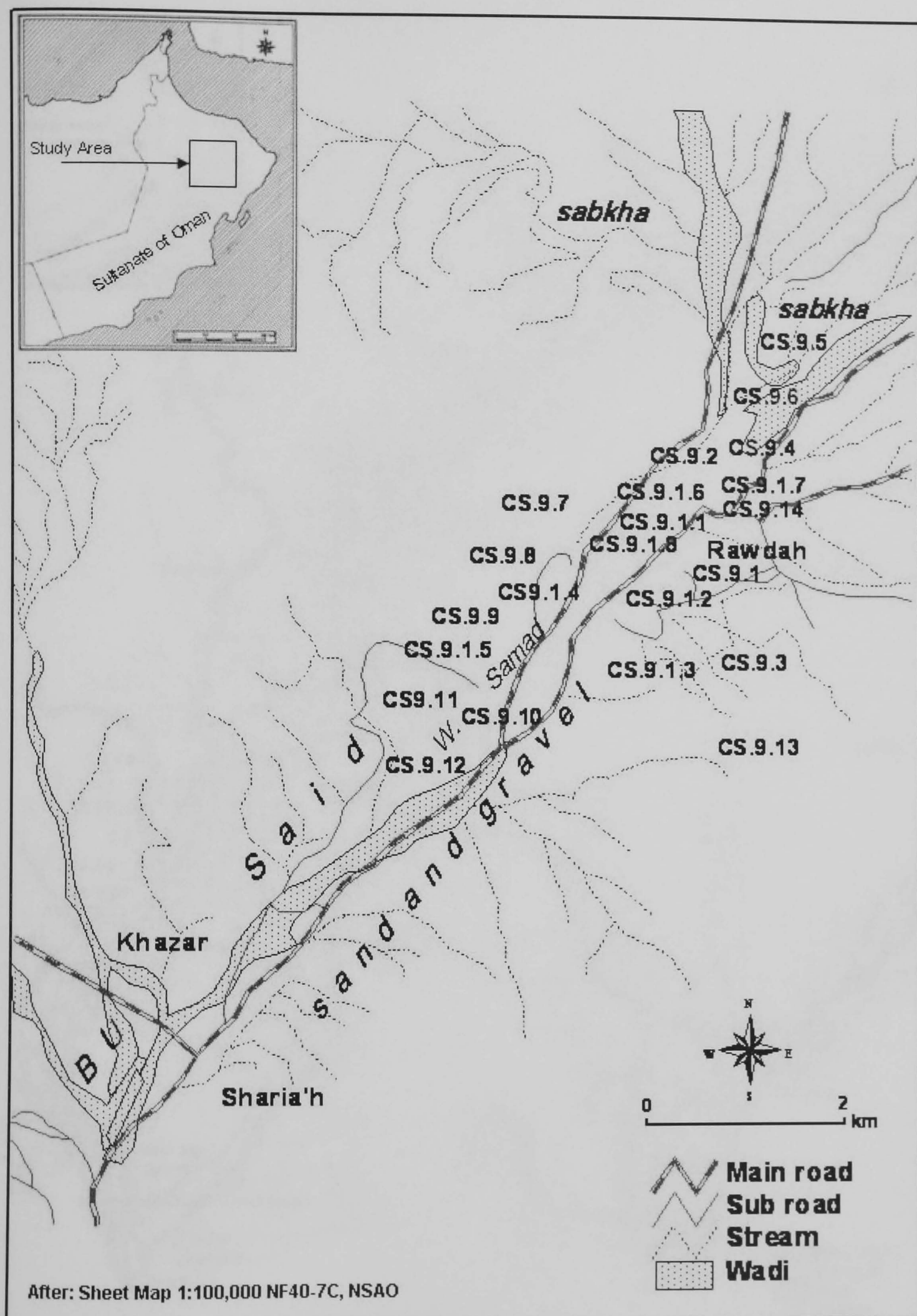


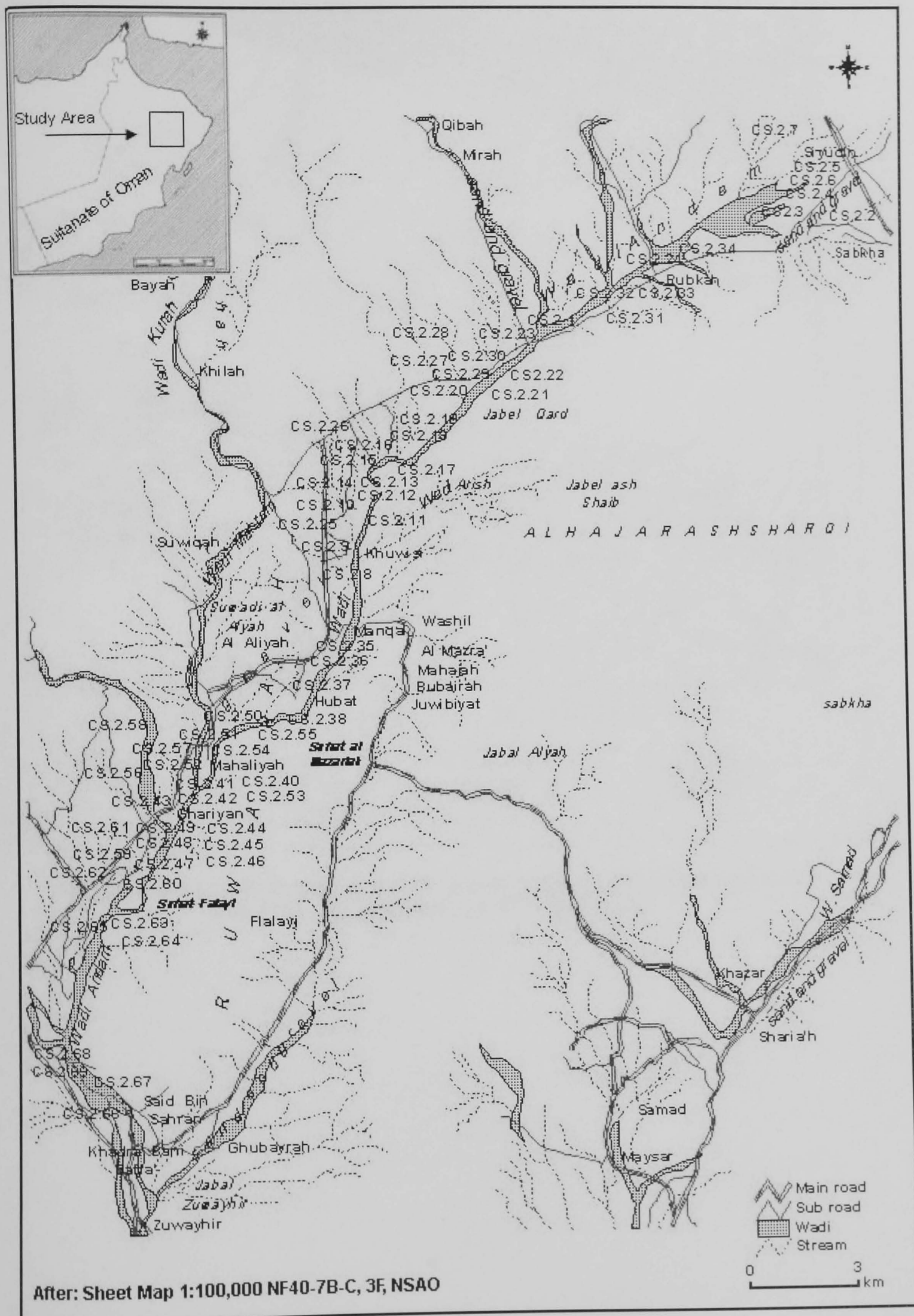
Map 41 Recorded sites at and around al-Khashbah village (CS.5)





Map 43 Recorded sites within and around Barzaman village (CS.7)





Map 45 Recorded sites along the Upper Wadi Andam (CS.2)

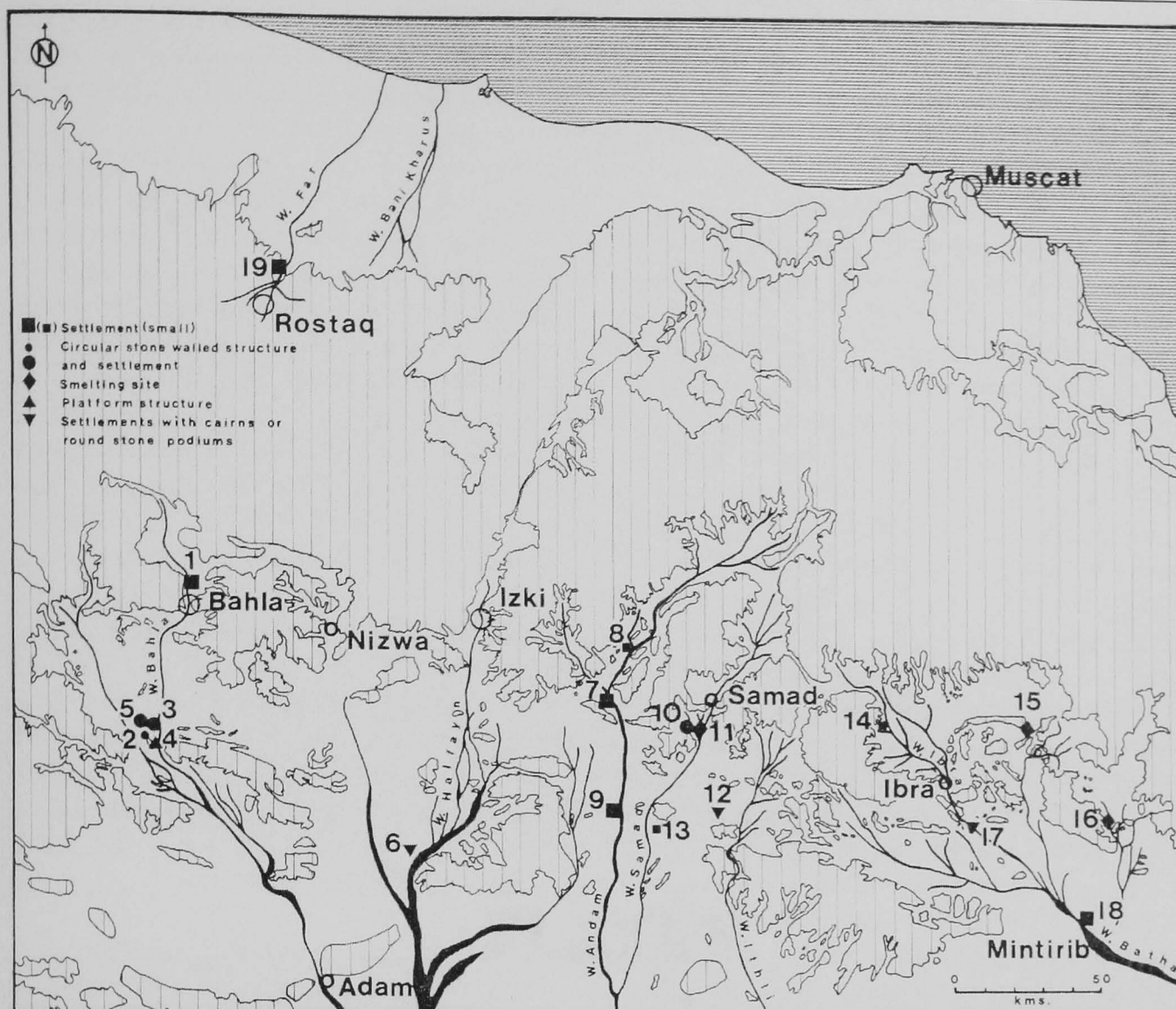


FIG. 2. Map showing the Third Millennium BCE settlements located by the Harvard Archaeological Survey in Oman.

- | | | | |
|---------|------------------|--------------------|------------------|
| 1—BB-6 | 6—Wadi Halfayn 3 | 11—Wadi Samad 5 | 16—Zahir 2-3 |
| 2—BB-16 | 7—Wadi Andam 1 | 12—Wadi Ithli 4 | 17—Wadi Ibra 2 |
| 3—BB-19 | 8—Wadi Andam 16 | 13—Batha 1 | 18—Tawi Hulays 1 |
| 4—BB-21 | 9—Wadi Andam 28 | 14—Wadi Khafifah 1 | 19—Wadi Far 1 |
| 5—BB-22 | 10—Wadi Samad 4 | 15—Batin 1 | |

Map 46 Location of the 3rd millennium B.C. settlement sites recorded by the Harvard Expedition (after Hastings et al. 1975: fig.2, p: 11)

PLATES



Plate 7 The field-camp house at al-'Alya village in Wadi Andam



Plate 8 The process of washing, drying, sorting and bagging pottery at the field-camp house



Plate 9 Backing and storing pottery at the field-camp house



Plate 10 Black Hafit cairn at the entrance of Al-Qaryatain village



Plate 11 The above black Hafit cairn burial chamber at Al-Qaryatain village



Plate 12 Disturbed Hafit cairn at site CS.2.15



Plate 13 Badly disturbed Hafit cairn with white creamy soil at site CS.2.8



Plate 14 Possibly disturbed Hafit cairn at site CS.2.42



Plate 15 Burial chamber and its possible jammed entrance at one of the disturbed Hafit cairns at site CS.2.47



Plate 16 Disturbed Hafit cairn at site CS.2.47



Plate 17 Partly bulldozed black Hafit cairn with white creamy soil at site CS.2.67

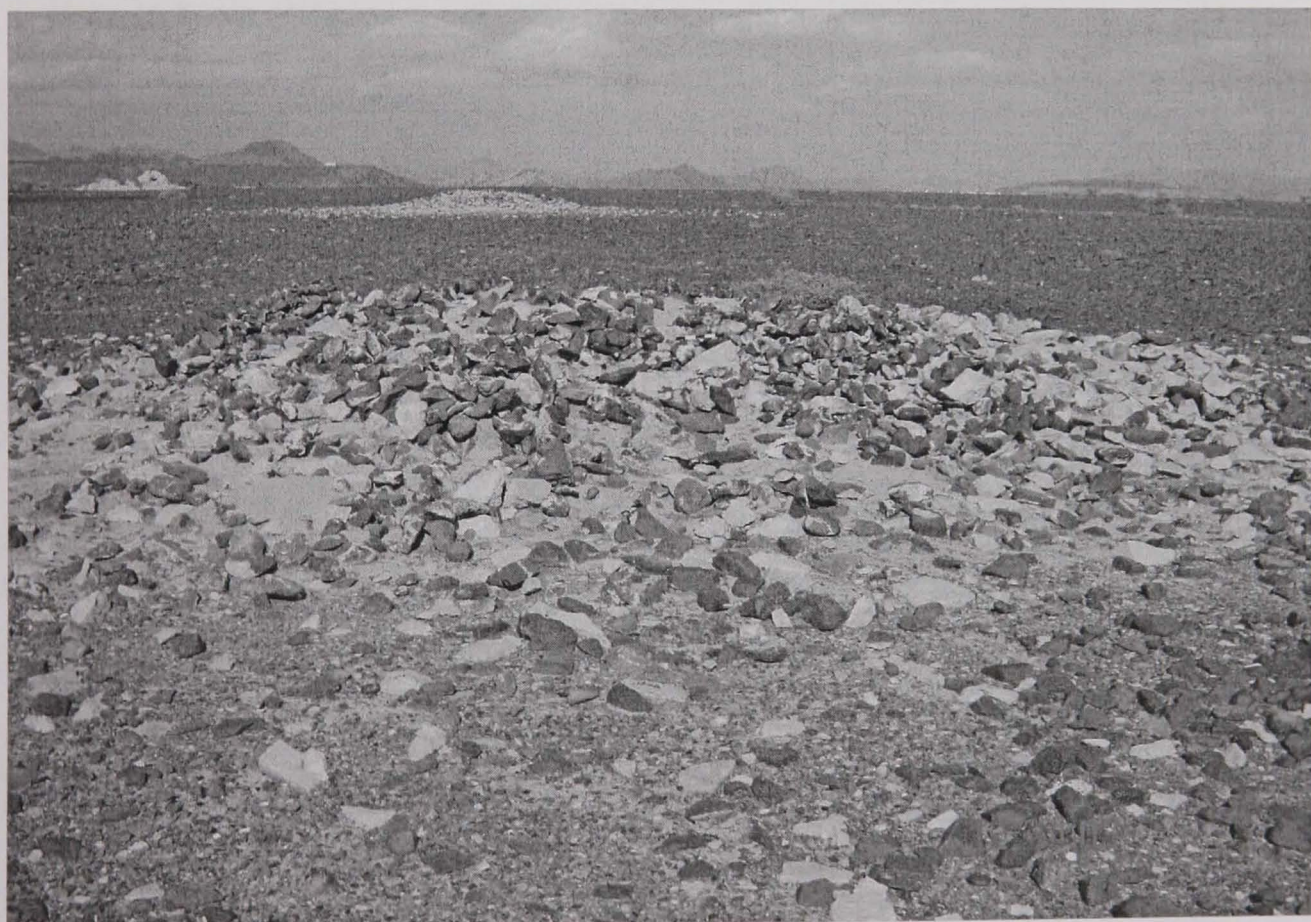


Plate 18 Disturbed black Hafit cairn with white creamy soil at site CS.4.13 with other similar cairns at the back of the photo



Plate 19 Black Hafit cairn with white creamy soil and concentric walls at site CS.4.14



Plate 20 Group of possible collapsed Hafit cairns at al-Khashbah site CS.5.3



Plate 21 Black Hafit cairn with white creamy soil at al-Khashbah site CS.5.10



Plate 22 Disturbed black Hafit cairn with fragments of human bones at al-Khashbah site CS.5.10



Plate 23 Hafit cairn with white creamy soil at al-Khashbah site CS.5.13



Plate 24 Hafit cairn at Barzaman site CS.7.2



Plate 25 Piled stones of possible platform around Hafit cairns at site CS.7.2



Plate 26 Piled stones of possible platform around Hafit cairns at site CS.7.2



Plate 27 Piled stones around Hafit cairns at site CS.5.15



Plate 28 Stone square and rectangular alignments and piled stones of possible platform around Hafit cairns at site CS.5.15



Plate 29 Stone rectangular alignments with piled stones of possible structure platform close to Hafit cairn with white creamy soil at the back of the photo at site CS.5.15

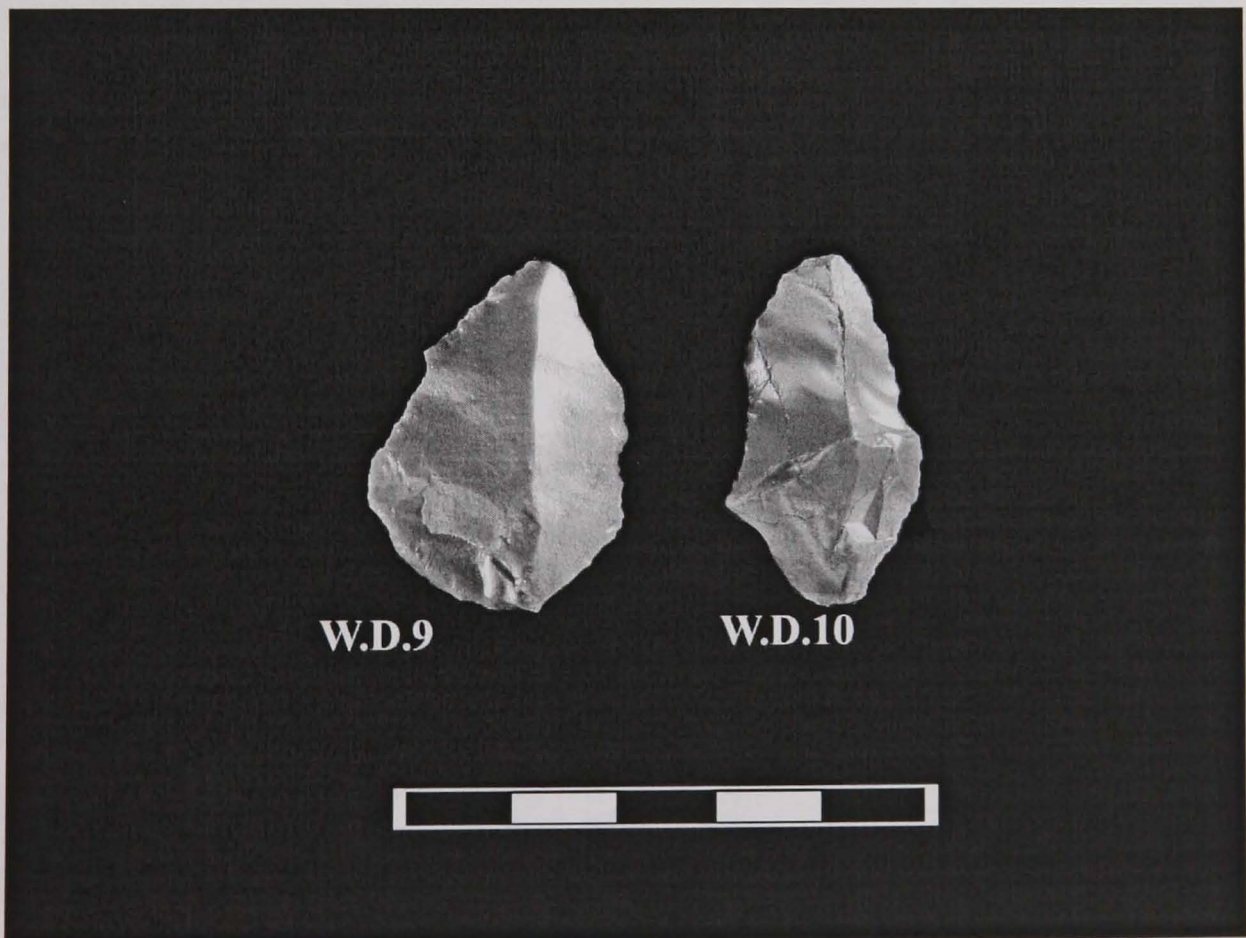


Plate 30 Two worked flint pieces found at Site CS.2.69.2.

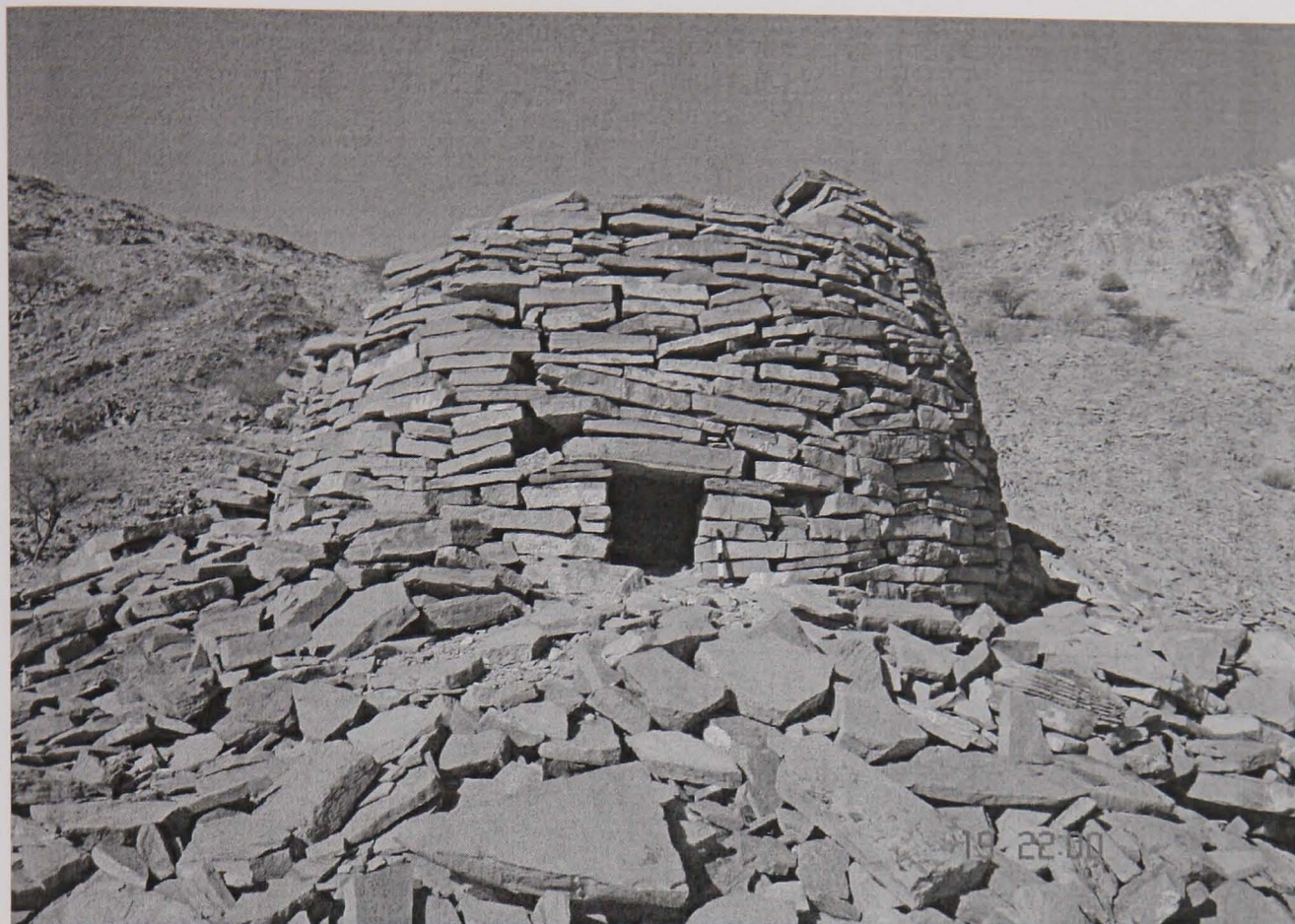


Plate 31 Beehive tomb with its eastern-oriented entrance at al-Fulayj area, site CS.1.1



Plate 32 Partly collapsed Beehive tomb at al-Fulayj area, site CS.1.4



Plate 33 Collapsed Beehive tomb with double-skin walls at al-Fulayj area, site CS.1.4



Plate 34 Burial chamber of a Beehive tomb at site CS.2.42



Plate 35 Beehive tomb with its eastern-oriented entrance at site CS.2.42



Plate 36 General view of the mound and its cut-section at site CS.5.1.2.1 at al-Khashbah



Plate 37 Mudbrick remains on the mound at site CS.5.1.2.1 at al-Khashbah



Plate 38 Umm an-Nar pottery sherds scattered on the mound at site CS.5.1.2.1 at al-Khashbah



Plate 39 Umm an-Nar sherd within a the cut-section layer of the mound at site CS.5.1.2.1 at al-Khashbah



Plate 40 General view of the cut-section mound at site CS.5.1.2.2 at al-Khashbah



Plate 41 Umm an-Nar pottery sherd within the cut-section layer of the mound at site CS.5.1.2.2 at al-Khashbah



Plate 42 General view of the Islamic cemetery at site CS.5.1.2.3 at al-Khashbah, which yielded a group of Umm an-Nar sherds



Plate 43 CS.5.2.1: large Umm an-Nar rectangular tower



Plate 44 The large Umm an-Nar rectangular tower at site CS.5.2.1 with its large boulder blocks and its well preserved height

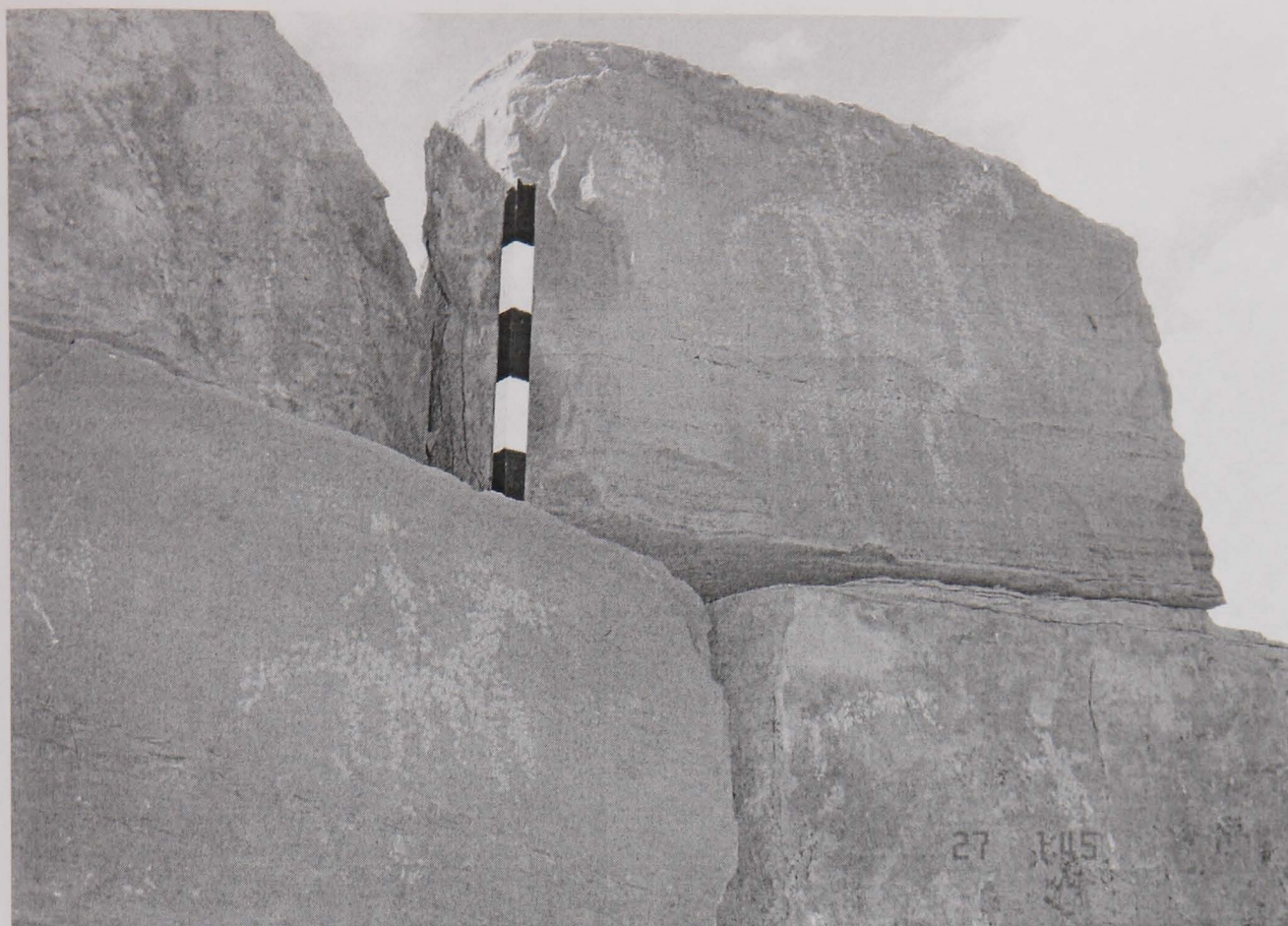


Plate 45 Rock drawings on the blocks of the large Umm an-Nar rectangular tower at site CS.5.2.1



Plate 46 Site CS.5.2.2: Umm an-Nar semi-square tower with four round corners



Plate 47 Site CS.5.2.3: Umm an-Nar round tower



Plate 48 Site CS.5.2.4: a disturbed area with stone and Umm an-Nar pottery sherds scatters close the square Umm an-Nar tower (CS.5.2.2)



Plate 49 Site CS.5.2.5: a group of scattered stones similar to those used in building the Umm an-Nar towers



Plate 50 Site CS.5.7: a badly disturbed Umm an-Nar tower



Plate 51 Site CS.5.7: The stone blocks of the above Umm an-Nar tower, which have been removed by the local people and piled them on the edge of the wadi



Plate 52 Site CS.5.9: a tomb field with a group of yellow Umm an-Nar tombs



Plate 53 Umm an-Nar tomb with its concentric walls and burial chamber divided walls at the tomb field in site CS.5.4



Plate 54 Site CS.2.52.1: a large Umm an-Nar round tower



Plate 55 The stone walls of the large Umm an-Nar round tower at Site CS.2.52.1



Plate 56 Late Iron Age/Samad Mahleya-type tomb at Site CS.2.52.2; it is built on possible Umm an-Nar tomb



Plate 57 Site CS.2.52.3: general view of the north-eastern cemetery with Late Iron Age/Samad Mahleya-type tombs.



Plate 58 Umm an-Nar rectangular stone structure within the Late Iron Age/Samad Mahleya-type tombs at Site CS.2.52.3



Plate 59 Site CS.2.52.4: An Umm a-Nar tomb field



Plate 60 Umm an-Nar rectangular stone structure at Site CS.2.52.5



Plate 61 Umm an-Nar stone structure remains at Site CS.2.52.5

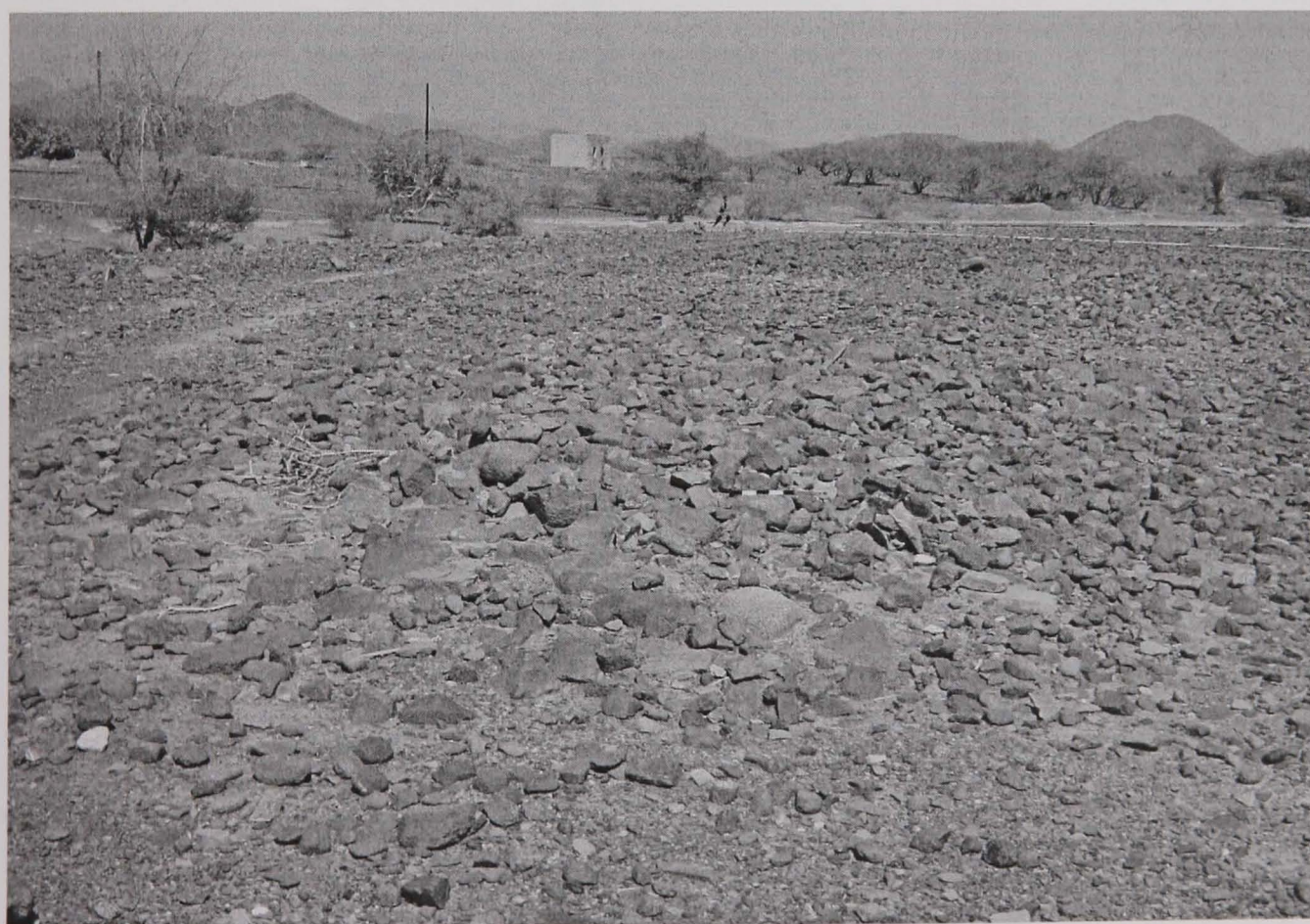


Plate 62 Possibly pre-Islamic cairn tombs in the Islamic cemetery at Site CS.2.52.6



Plate 63 Pre-Islamic tombs, possibly Umm an-Nar in the Islamic cemetery at Site CS.2.52.6

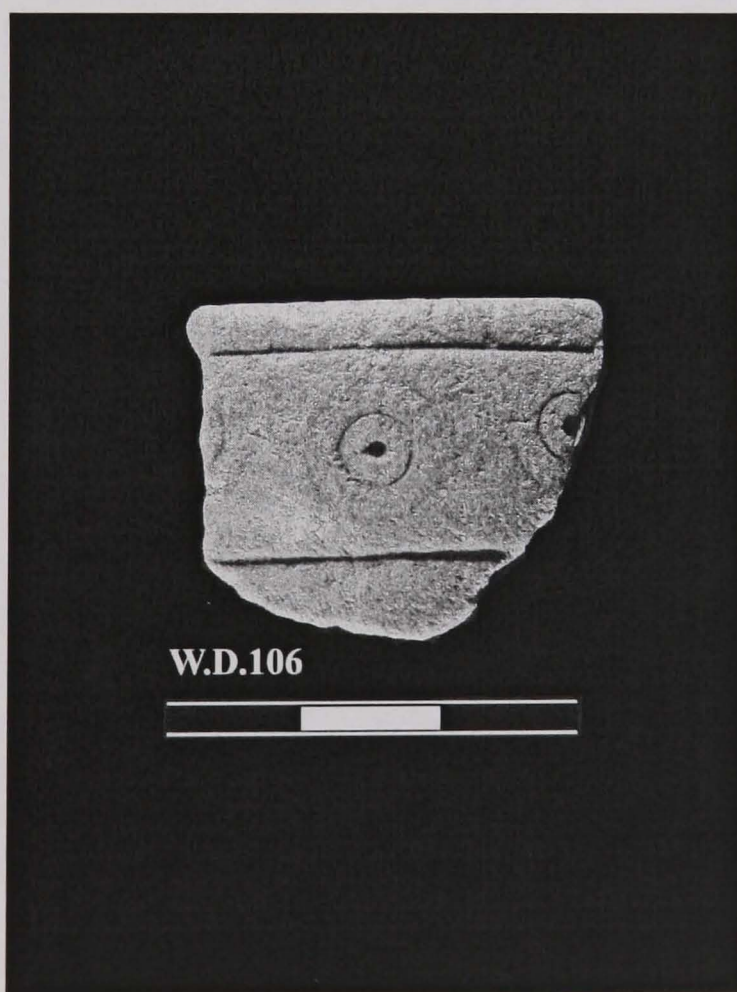


Plate 64 Fragment of Umm an-Nar chlorite vessel from Site CS.2.52.4



Plate 65 Disturbed Umm an-Nar stone structures at CS.2.68



Plate 66 Badly disturbed Hafit cairn at CS.2.68



Plate 67 Hafit cairns with white creamy soil at CS.2.69.1



Plate 68 Hafit cairn with white creamy soil and two concentric walls at CS.2.69.1



Plate 69 Site CS.2.69.2: possibly Umm an-Nar round tower with stone walls

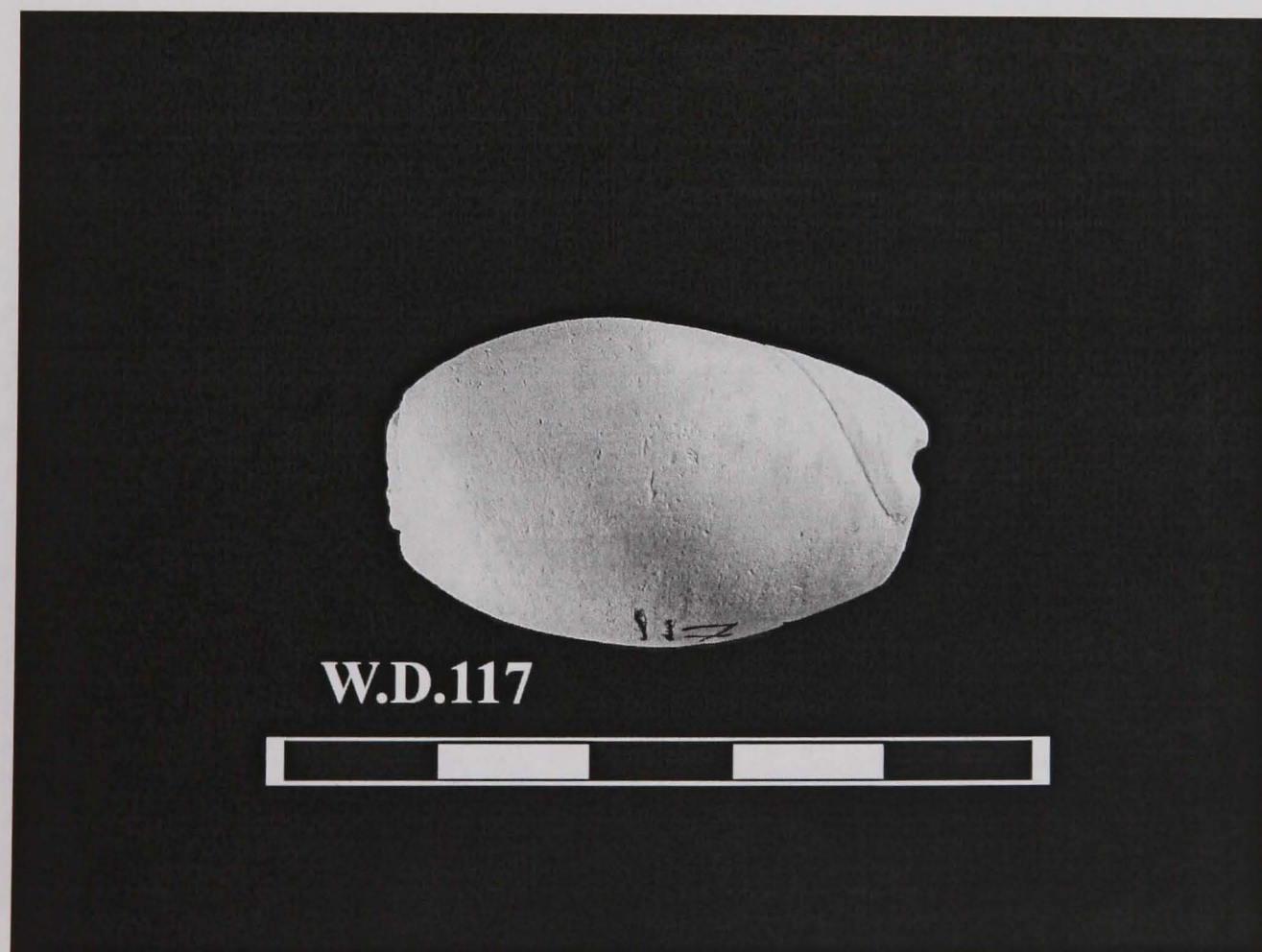


Plate 70 Shell from site CS.2.69.1, Tomb 3



Plate 71 Mudbrick building remains on top of a black rocky hill at site CS.9.2.1



Plate 72 Mudbrick building remains on a slope of a black rocky hill and a possible rubbish dump area to the right of the mudbrick building at site CS.9.2.1



Plate 73 Site CS.9.2.2: The date palm grove that checked for pottery pick-ups

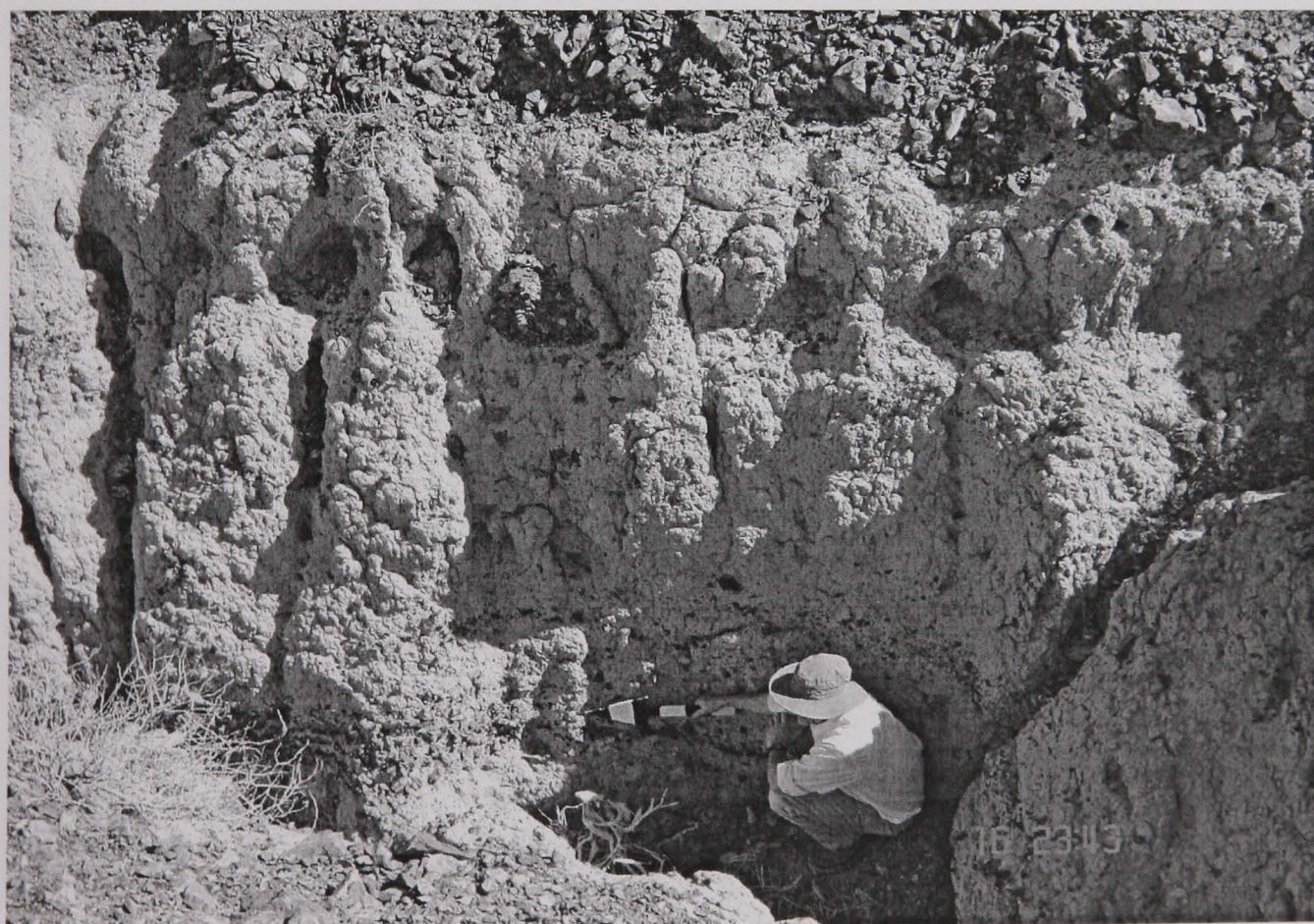


Plate 74 Site CS.9.4: a well cut-section north ar-Rawdhah village with a layer of that includes Umm an-Nar pottery sherds and possible mudbrick remains



Plate 75 Site CS.9.4: the spoil of the well cut-section north ar-Rawdhah village



Plate 76 Possibly subterranean pre-Islamic tomb at site CS.5.18 in al-Khashbah village



Plate 77 Possibly long oval subterranean Wadi Suq tomb at site CS.7.2 in Barzaman



Plate 78 Possibly long oval subterranean Wadi Suq tomb at site CS.7.2 in Barzaman



Plate 79 Badly disturbed burial chamber of possible long oval subterranean Wadi Suq tomb at site CS.7.2 in Barzaman

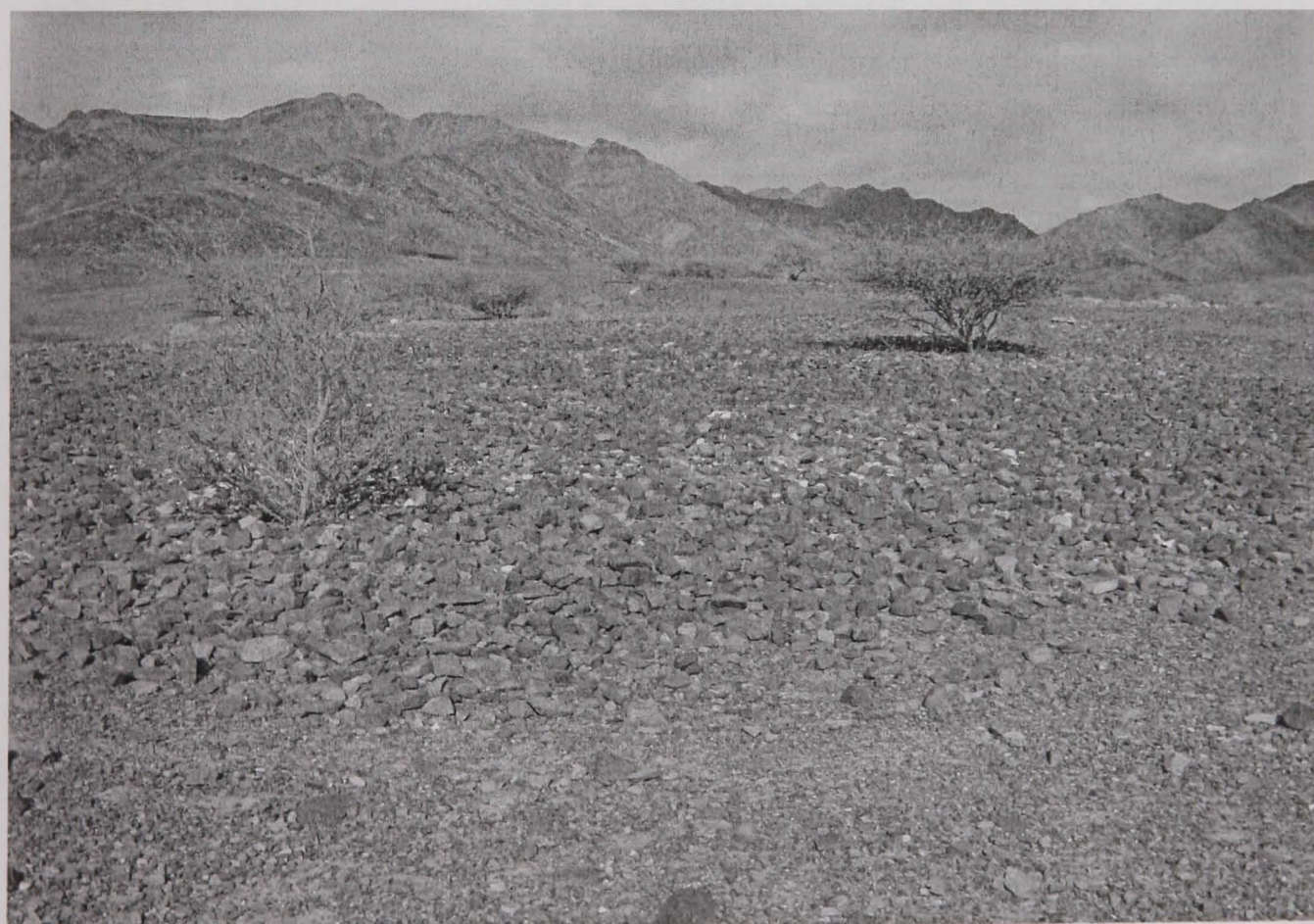


Plate 80 Possibly pre-Islamic tomb at site CS.9.8



Plate 81 Possibly pre-Islamic tomb at site CS.9.8



Plate 82 Site CS.2.4: a disturbed cairn wit concentric walls

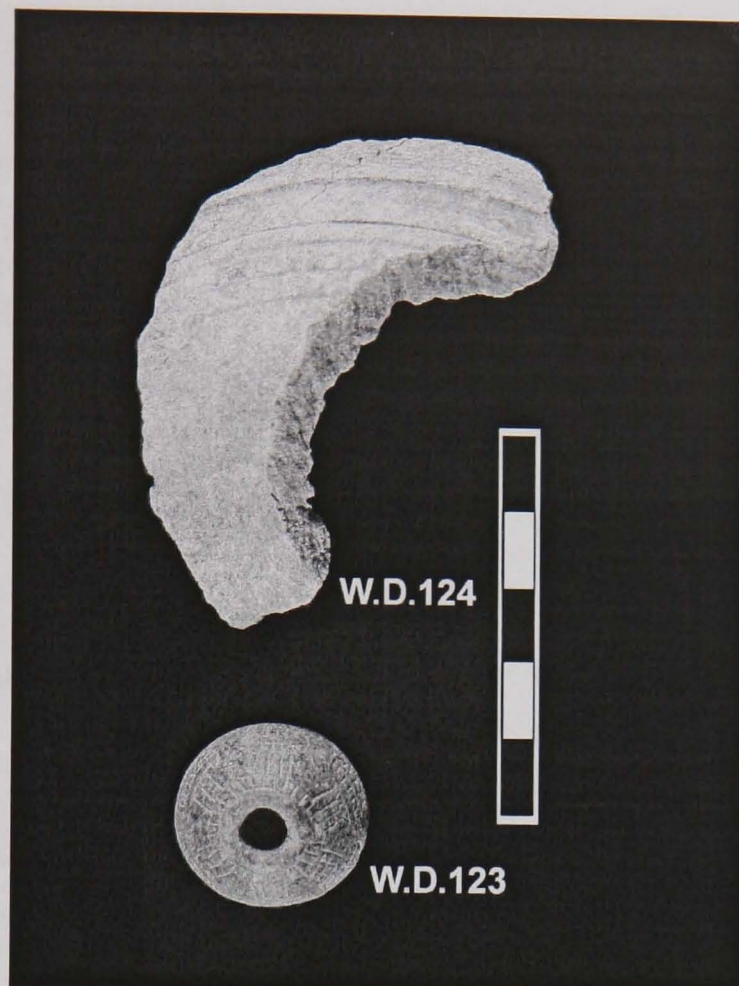


Plate 83 Spindle-whorl and a fragment of chlorite vessel from Site CS.2.4

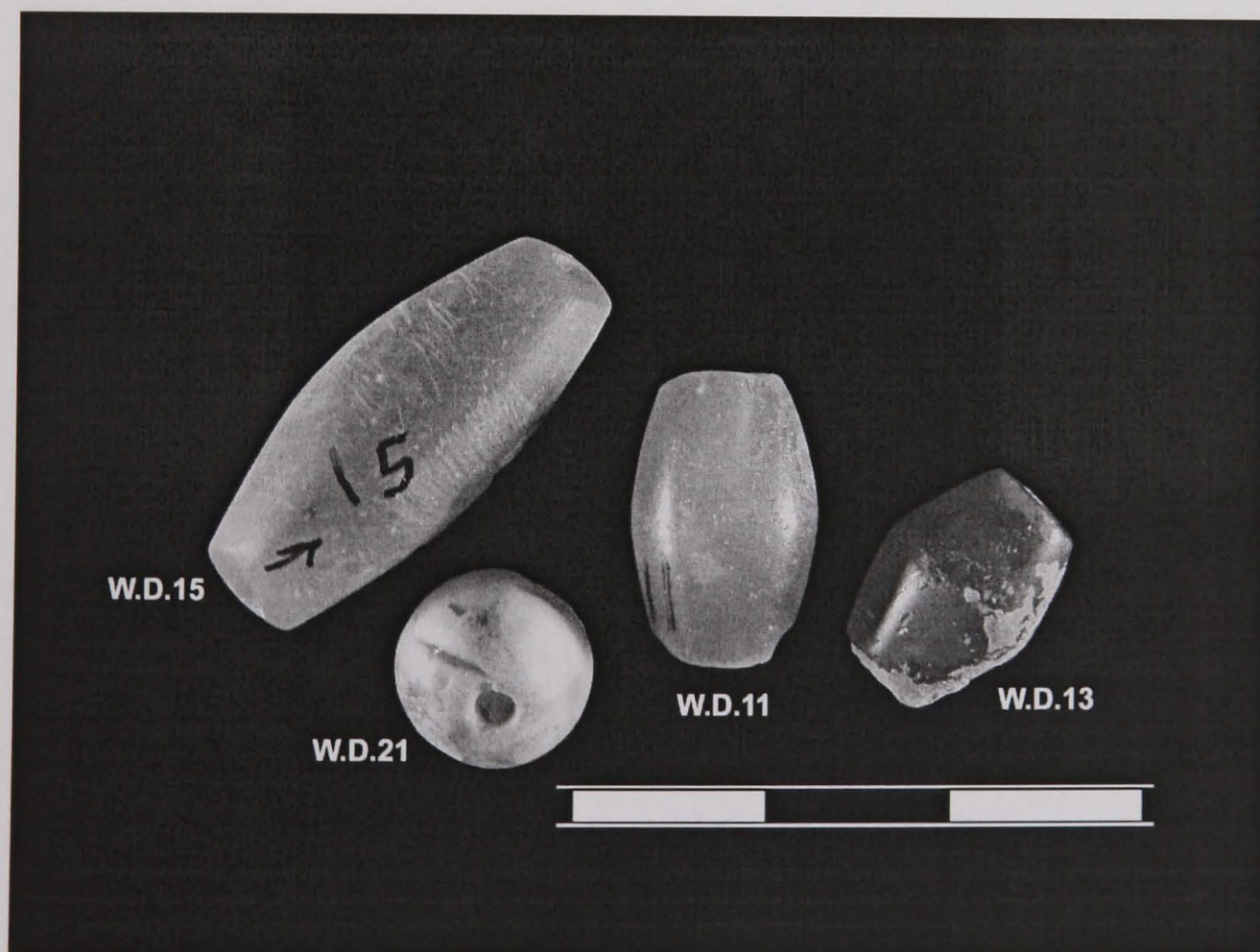


Plate 84 Beads from different sites: W.D.15 from CS.2.4; W.D.21 from CS.4.13, Tomb 9; W.D.11 from CS.5.13, Tomb 27 & W.D.13 from CS.1.4, Tomb 1

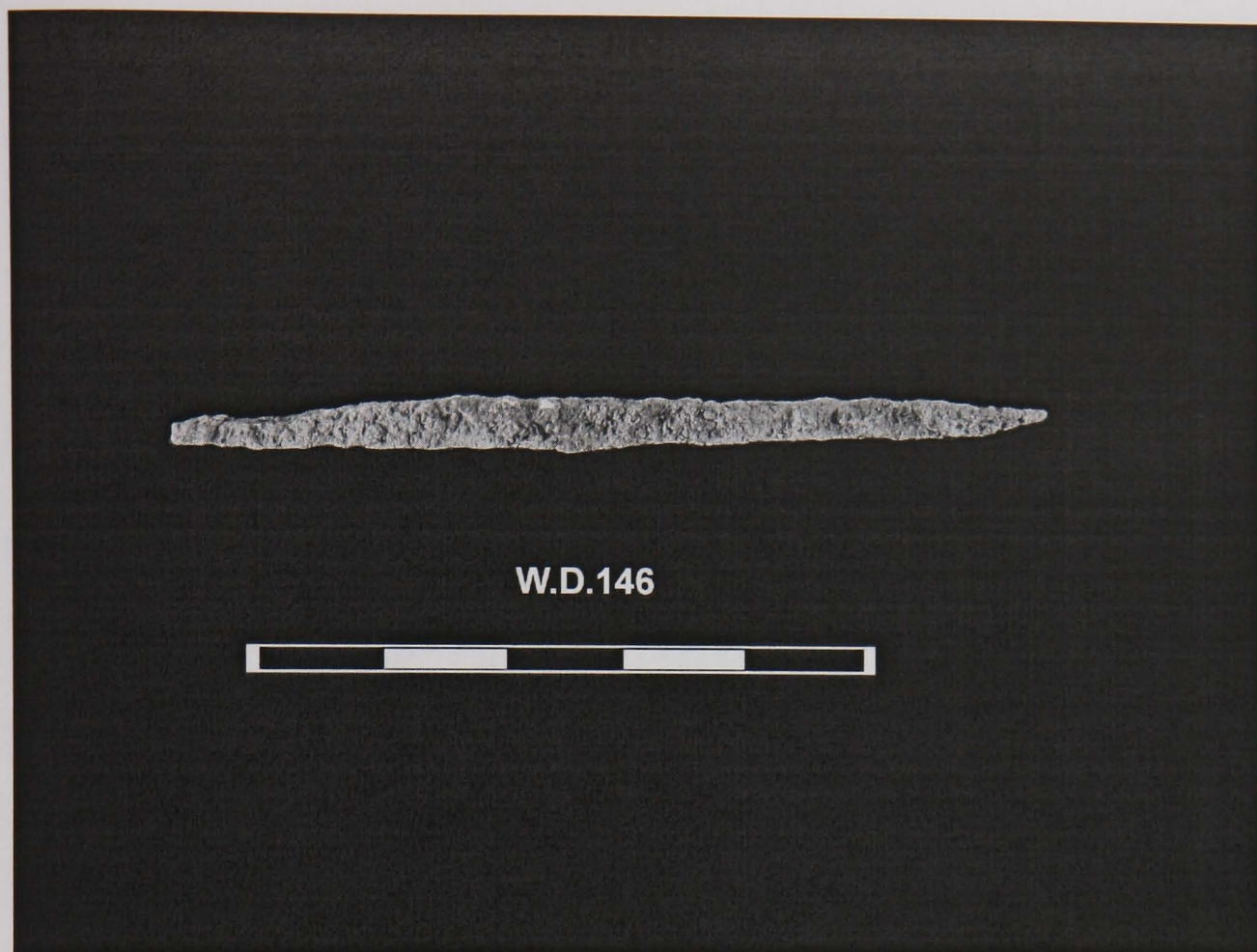


Plate 85 Badly eroded copper pin from Site CS.2.4

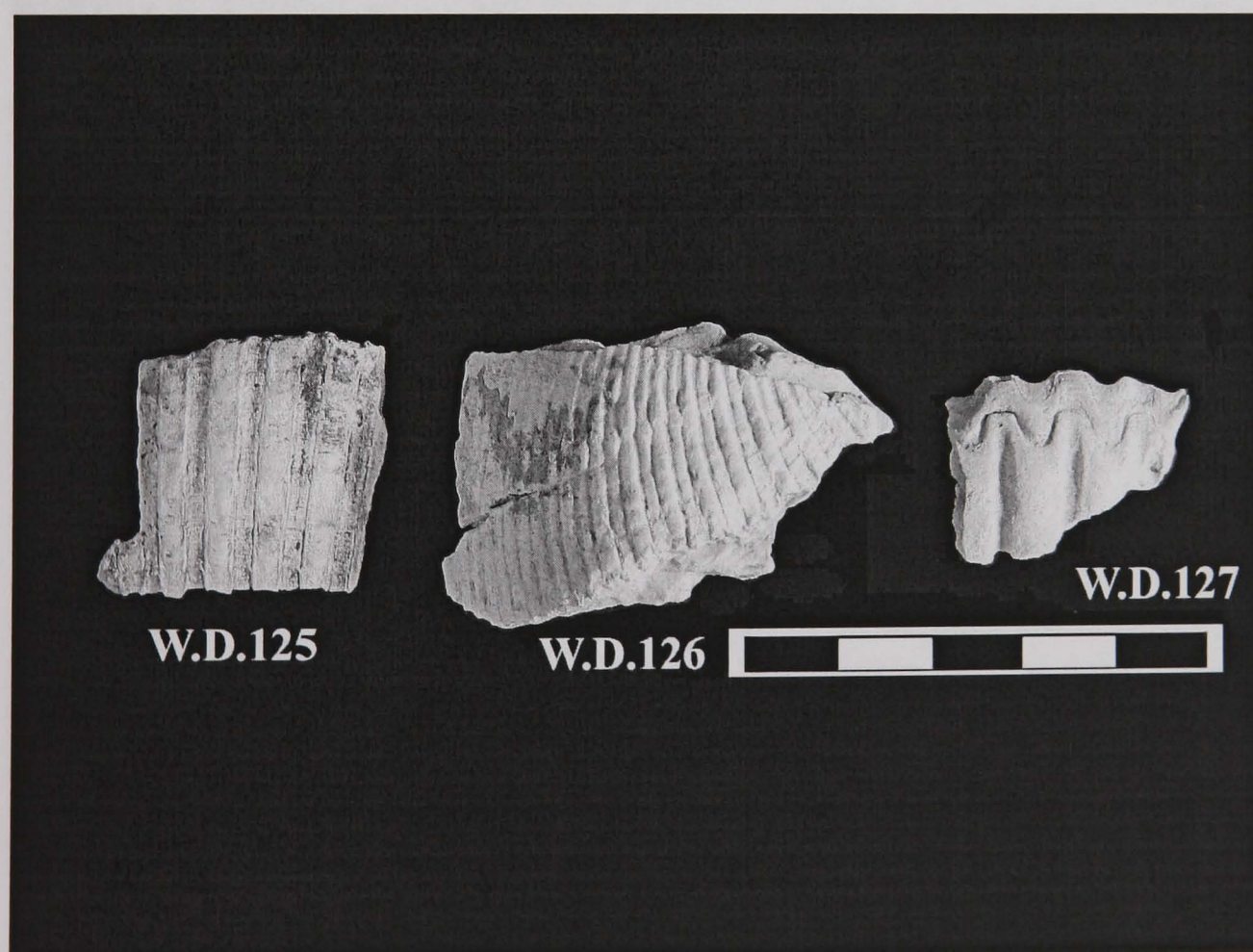


Plate 86 Fragments of shells from Site CS.2.4



Plate 87 Circular stone structure with double stones wall at site CS.2.11



Plate 88 Stone wall of the above circular stone structure at site CS.2.11



Plate 89 Remains of stone structures at site CS.2.11



Plate 90 Hafit cairn tombs with white creamy soil at site CS.2.56.2



Plate 91 Badly disturbed of possibly re-used Hafit cairn at site CS.4.3 at al-Qaryatain



Plate 92 Badly disturbed of possibly re-used Hafit cairn at site CS.4.3 at al-Qaryatain

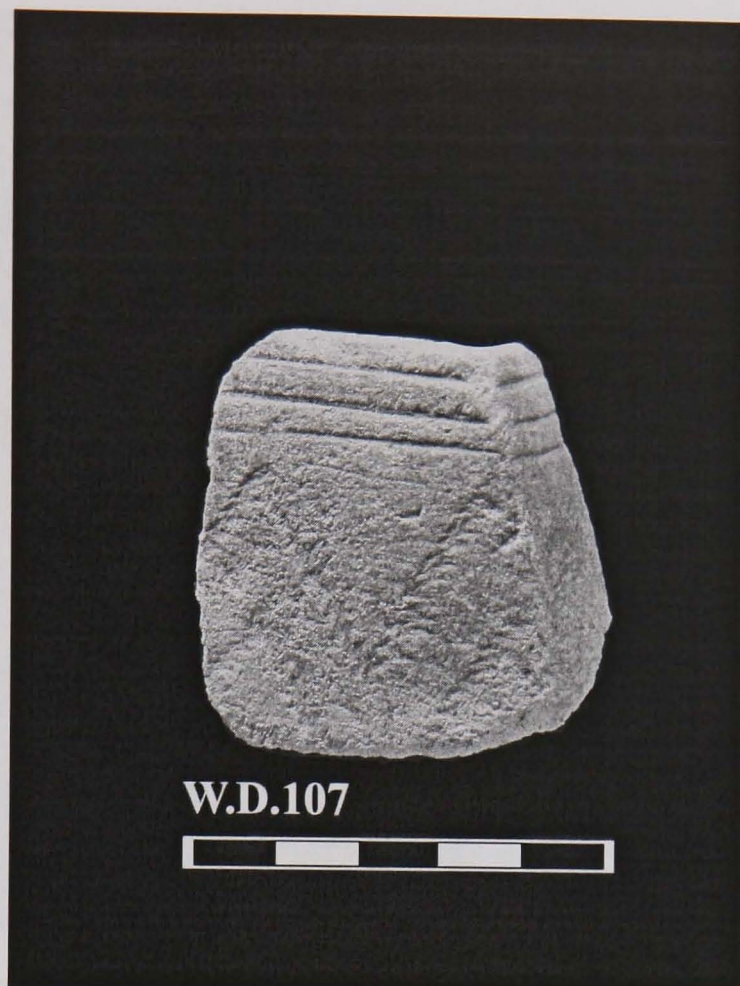


Plate 93 Fragment of chlorite vessel from possibly re-used Hafit cairn at site CS.4.3 at al-Qaryatain

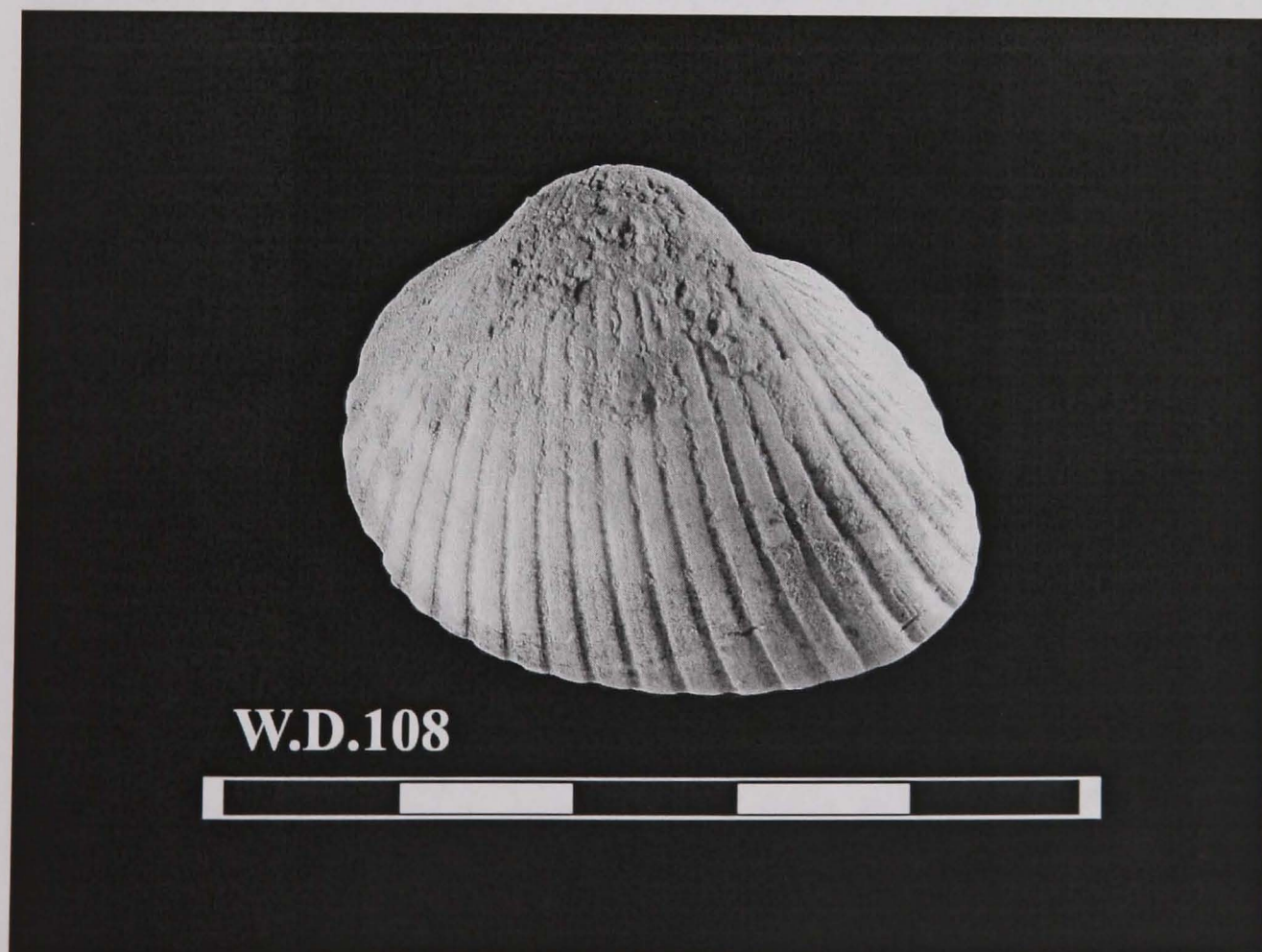


Plate 94 Shell from a possibly re-used Hafit cairn at site CS.4.3 at al-Qaryatain



Plate 95 Disturbed tomb of possibly re-used Hafit Cairn with white creamy soil at site CS.4.13 at al-Qaryatain

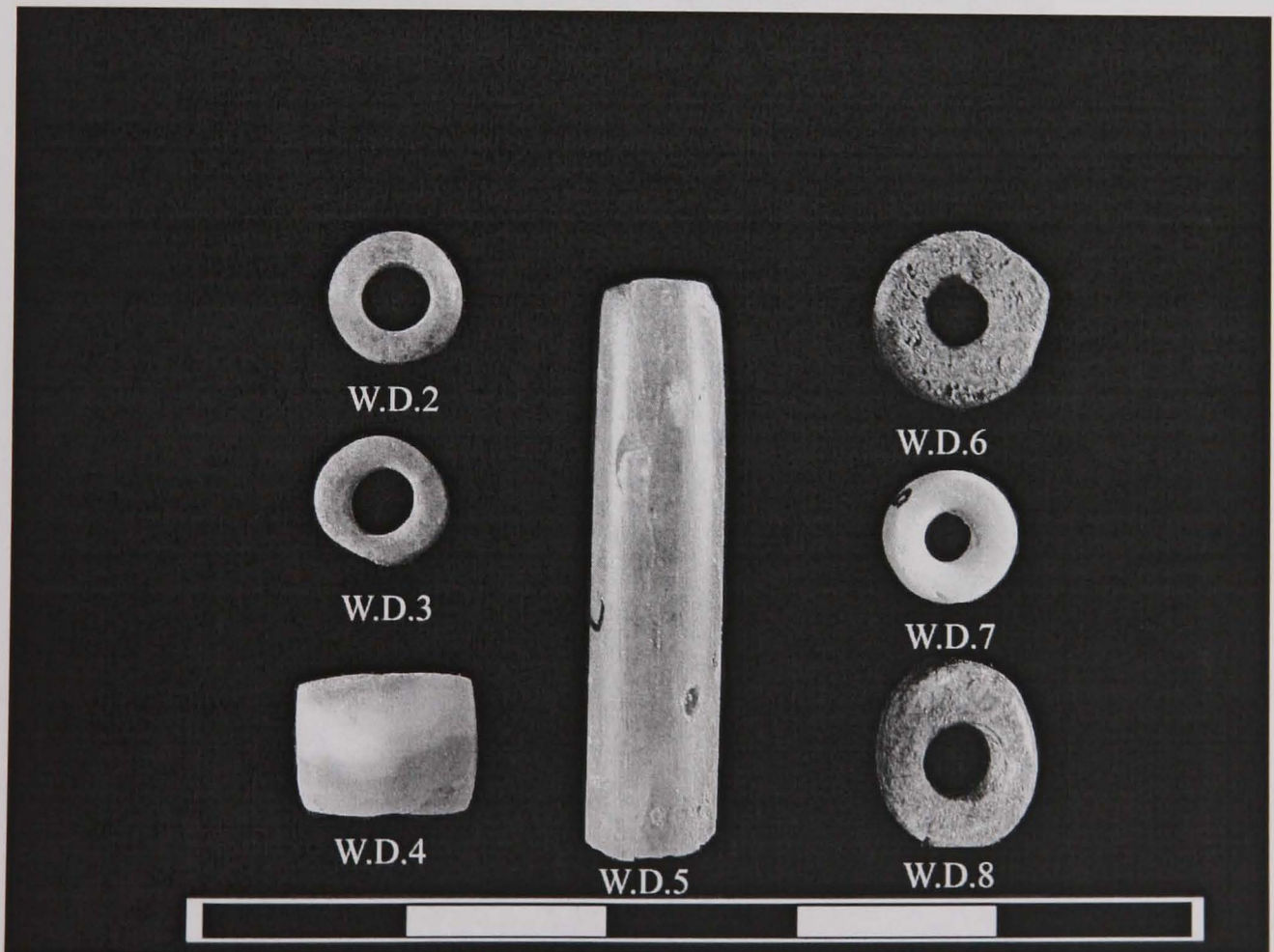


Plate 96 Beads from a possibly re-used Hafit cairn with white creamy soil (CS.4.13, Tomb 8) at al-Qaryatain

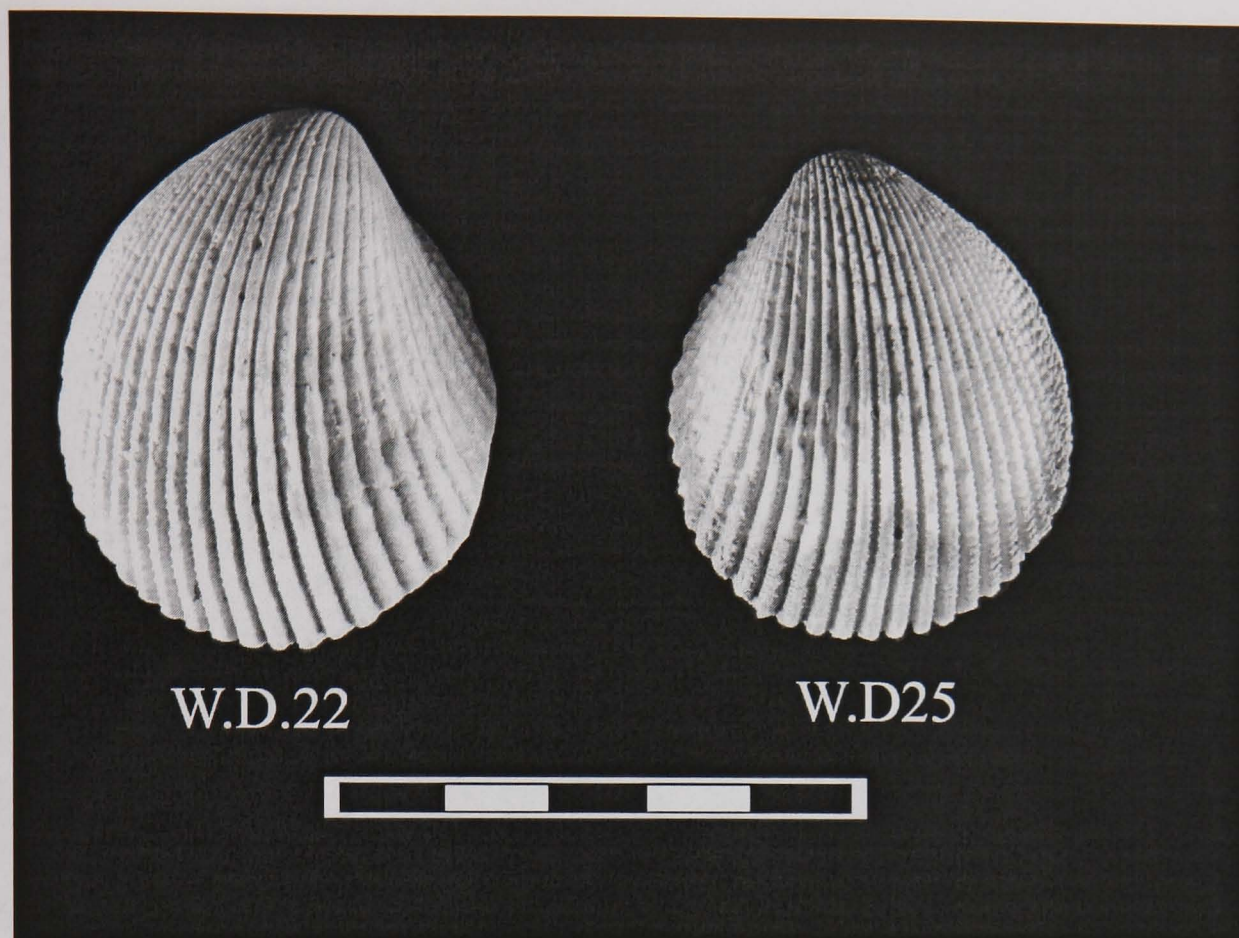


Plate 97 Two shells from CS.4.13, Tomb 9 (W.D.22) and CS.2.67.17 (W.D.25)

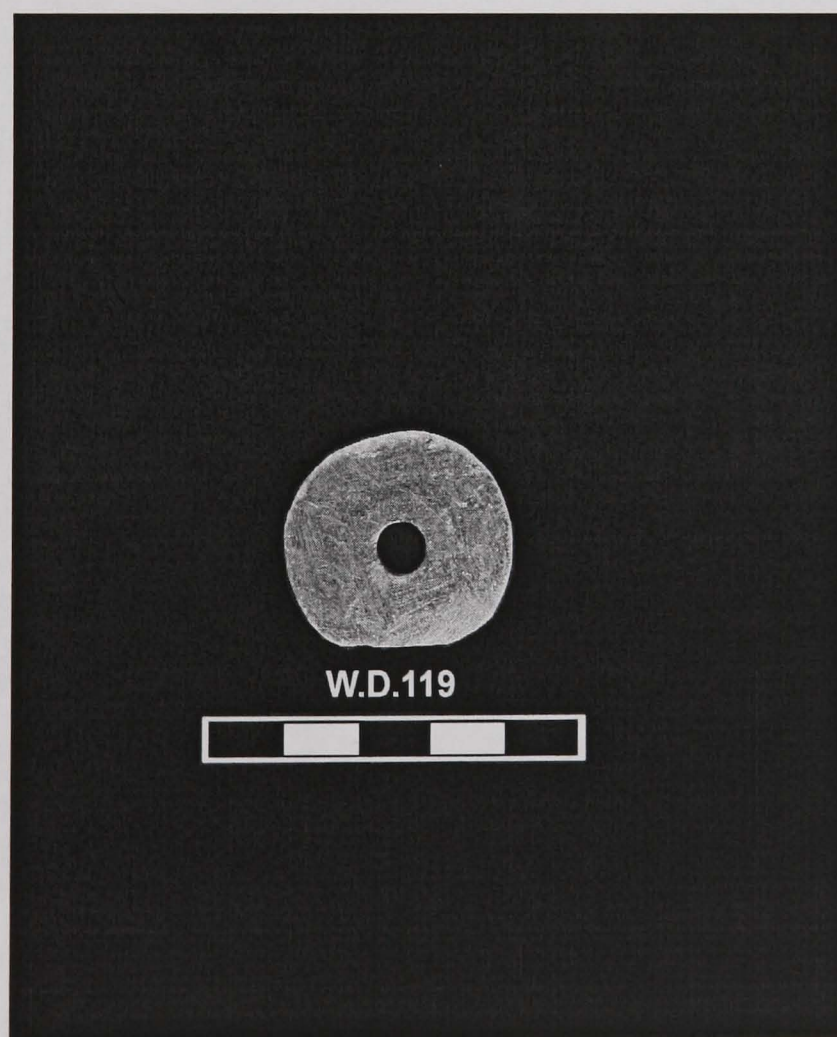


Plate 98 Chlorite perforated spindle-whorl from CS.4.13, Tomb 1



Plate 99 Group of piled stones at site CS.4.4 at al-Qaryatain



Plate 100 Remains of stone structure at site CS.4.4 at al-Qaryatain



Plate 101 Horseshoe structure at site CS.4.4 at al-Qaryatain



Plate 102 Remains of stone structure at site CS.4.4 at al-Qaryatain



Plate 103 Wall-barrier (Sanger) facing the wadi at site CS.4.4 at al-Qaryatain



Plate 104 A possibly re-used black Hafit cairn with white creamy soil at site CS.4.10 in al-Qaryatain



Plate 105 A possibly re-used Hafit cairn with white creamy soil at site CS.4.10 in al-Qaryatain

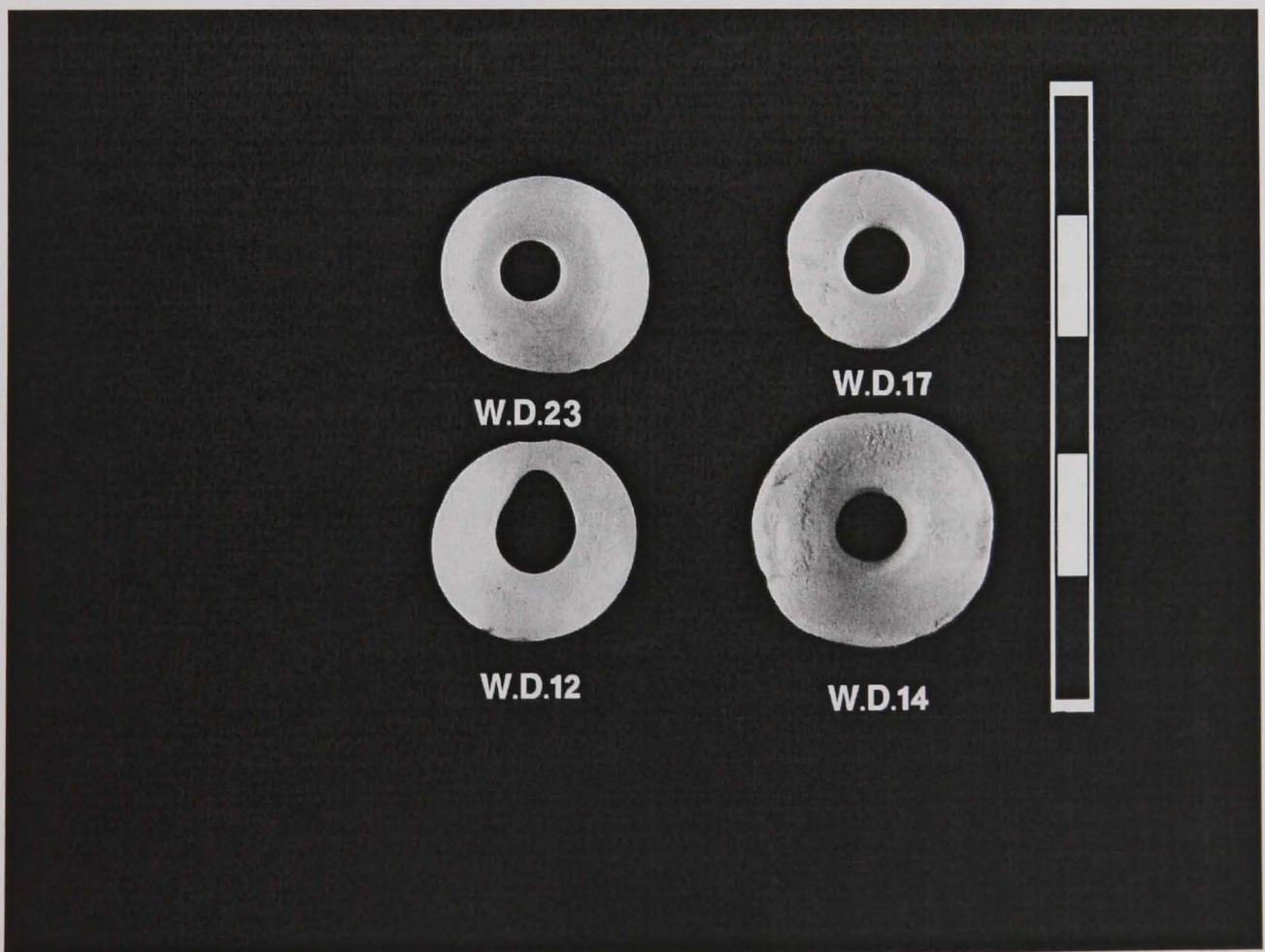


Plate 106 Beads from different sites: CS.2.67.17 (W.D.23); CS.5.13, Tomb 4 (W.D.12); CS.5.10, Tomb 2 (W.D.17) & CS.2.67.10 (W.D.14)

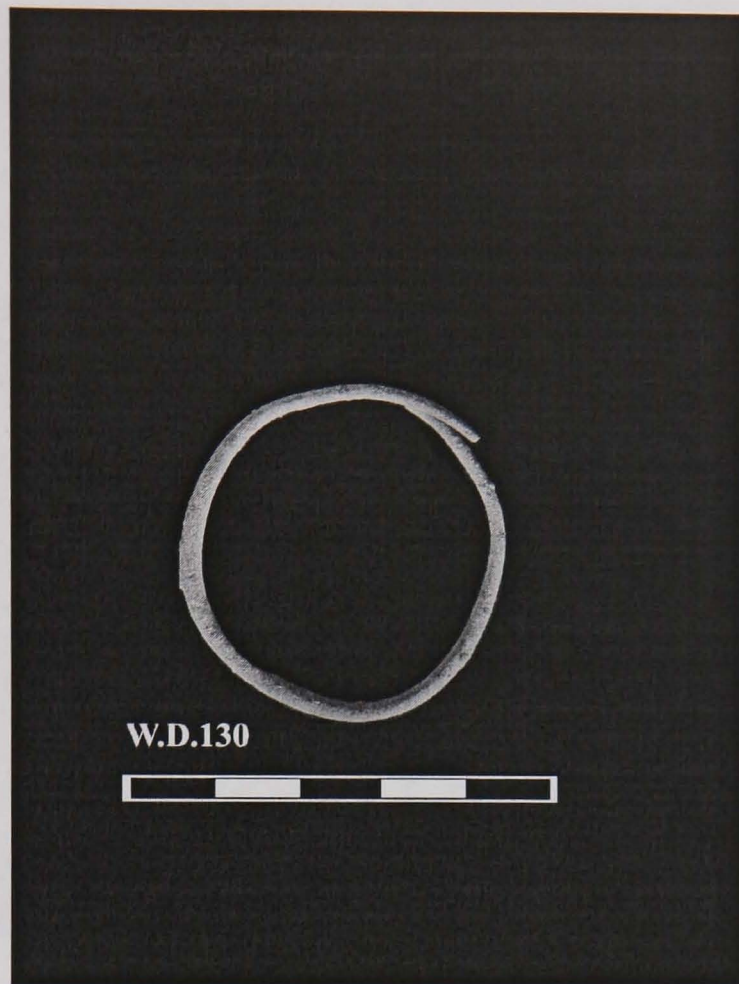


Plate 107 Iron/copper earring from CS.5.10, Tomb 2



Plate 108 A possibly re-used Hafit cairns with white creamy soil at site CS.5.13 in al-Khashbah



Plate 109 A possibly re-used Hafit cairn with white creamy soil at site CS.5.13 in al-Khashbah

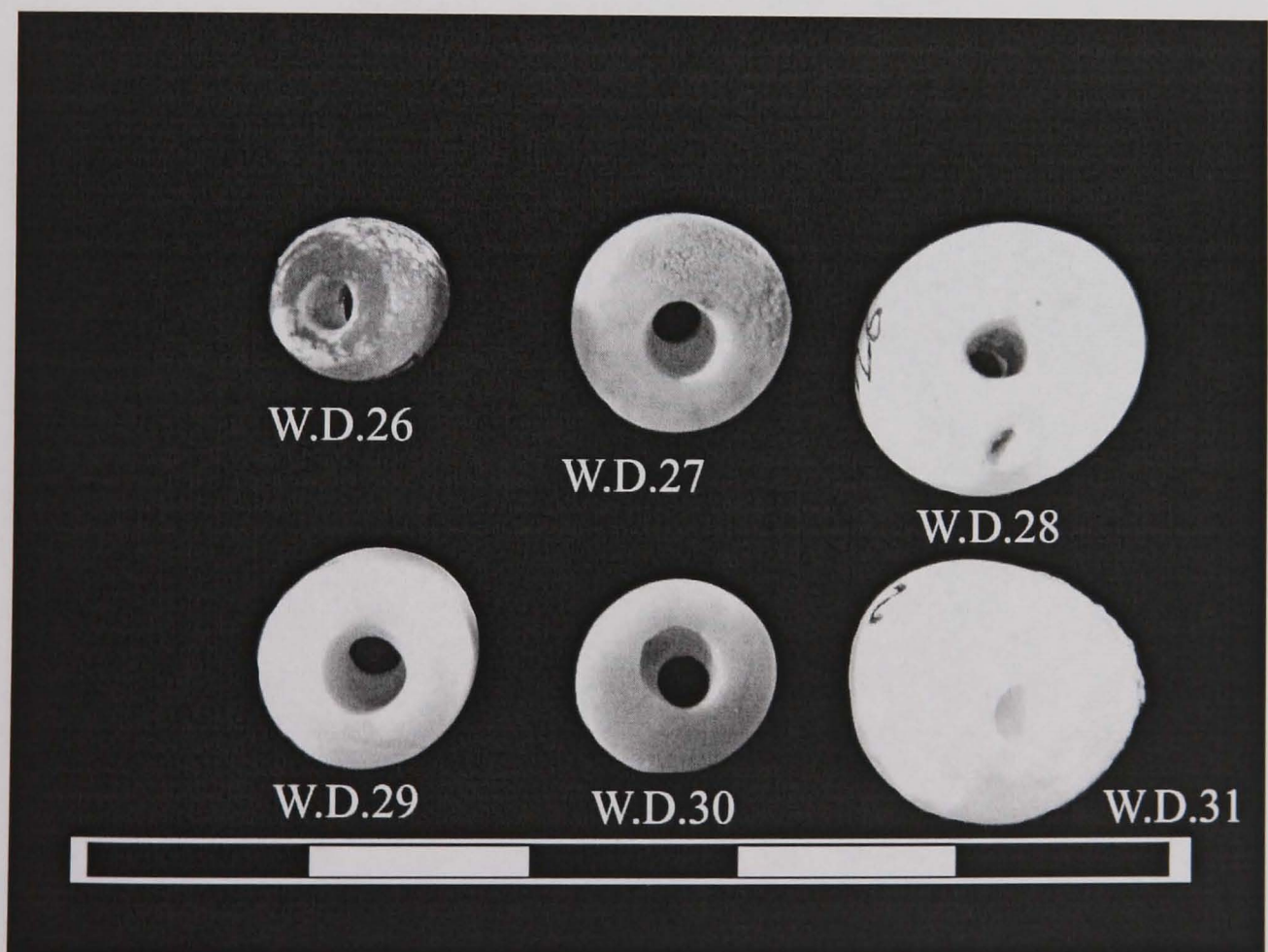


Plate 110 Beads from site CS.5.13, Tomb 2

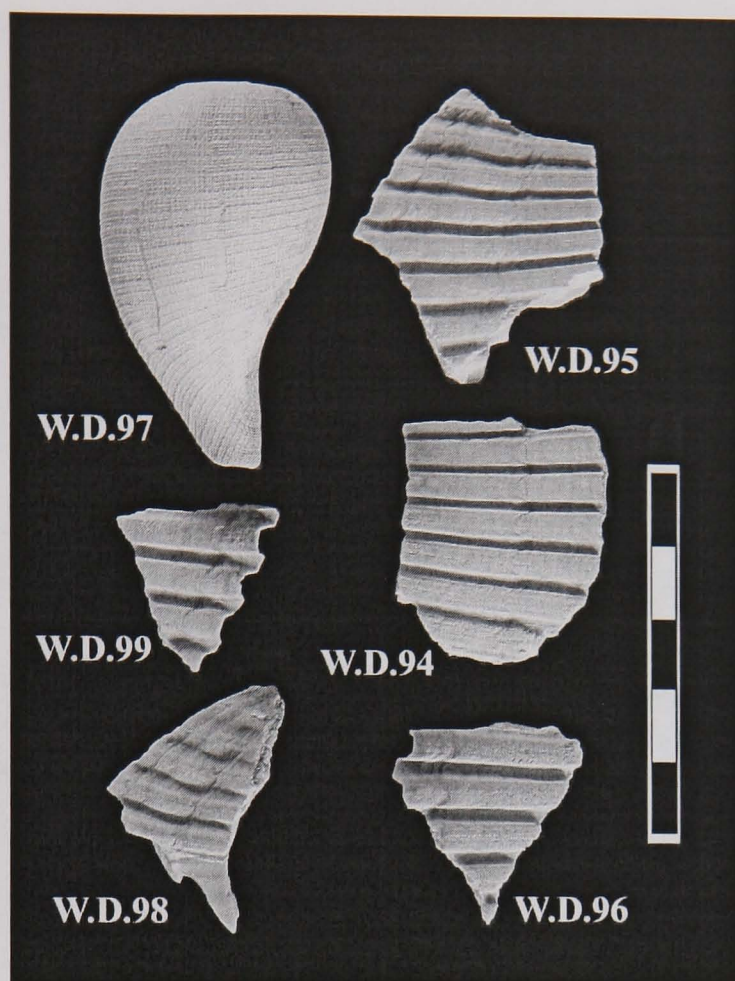


Plate 111 Shells from site CS.5.13, Tomb 2

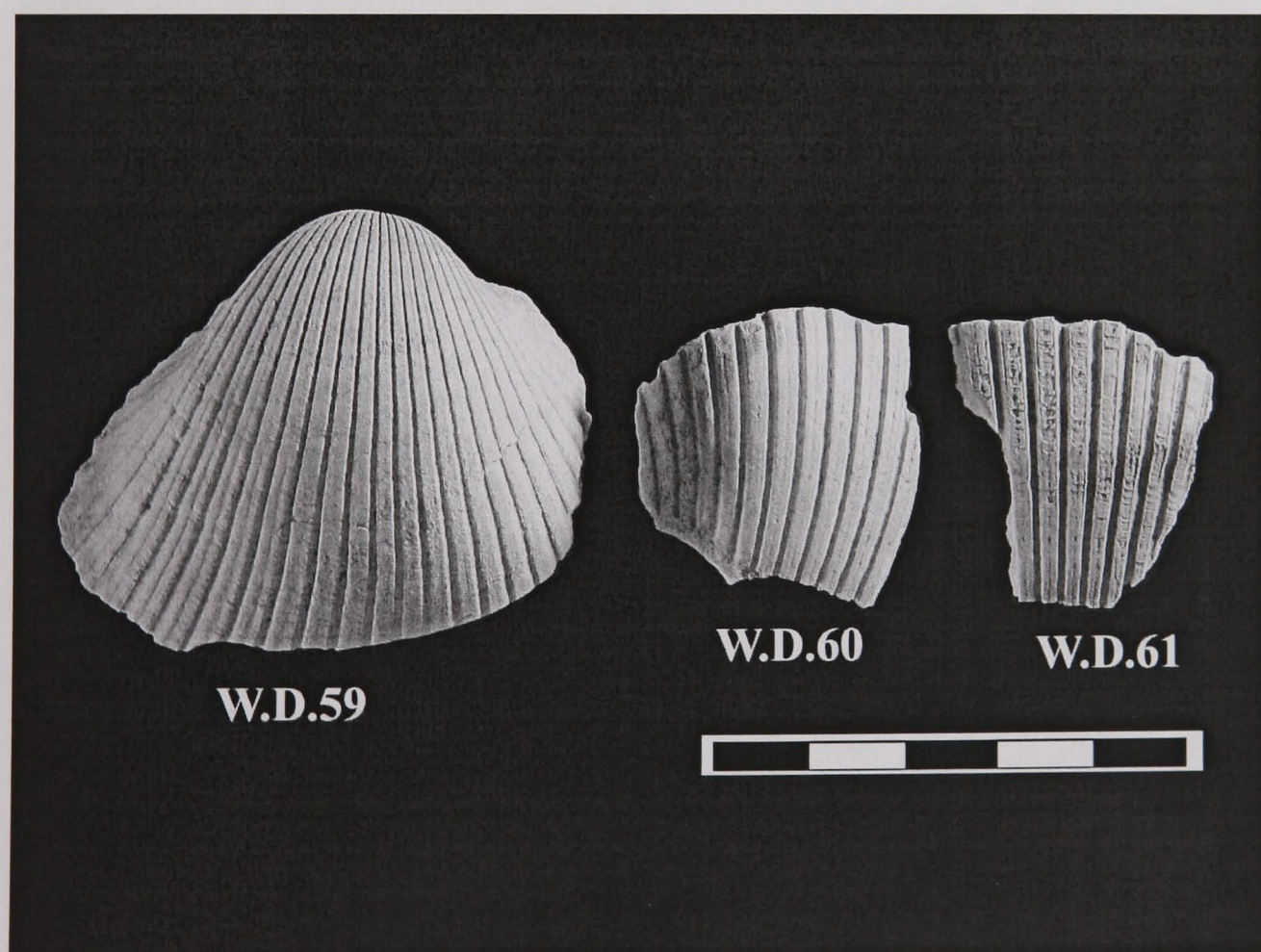


Plate 112 Shells from site CS.5.13, Tomb 4



Plate 113 A possibly re-used Hafit cairn at site CS.2.67



Plate 114 A possibly collapsed Beehive tomb at site CS.2.67

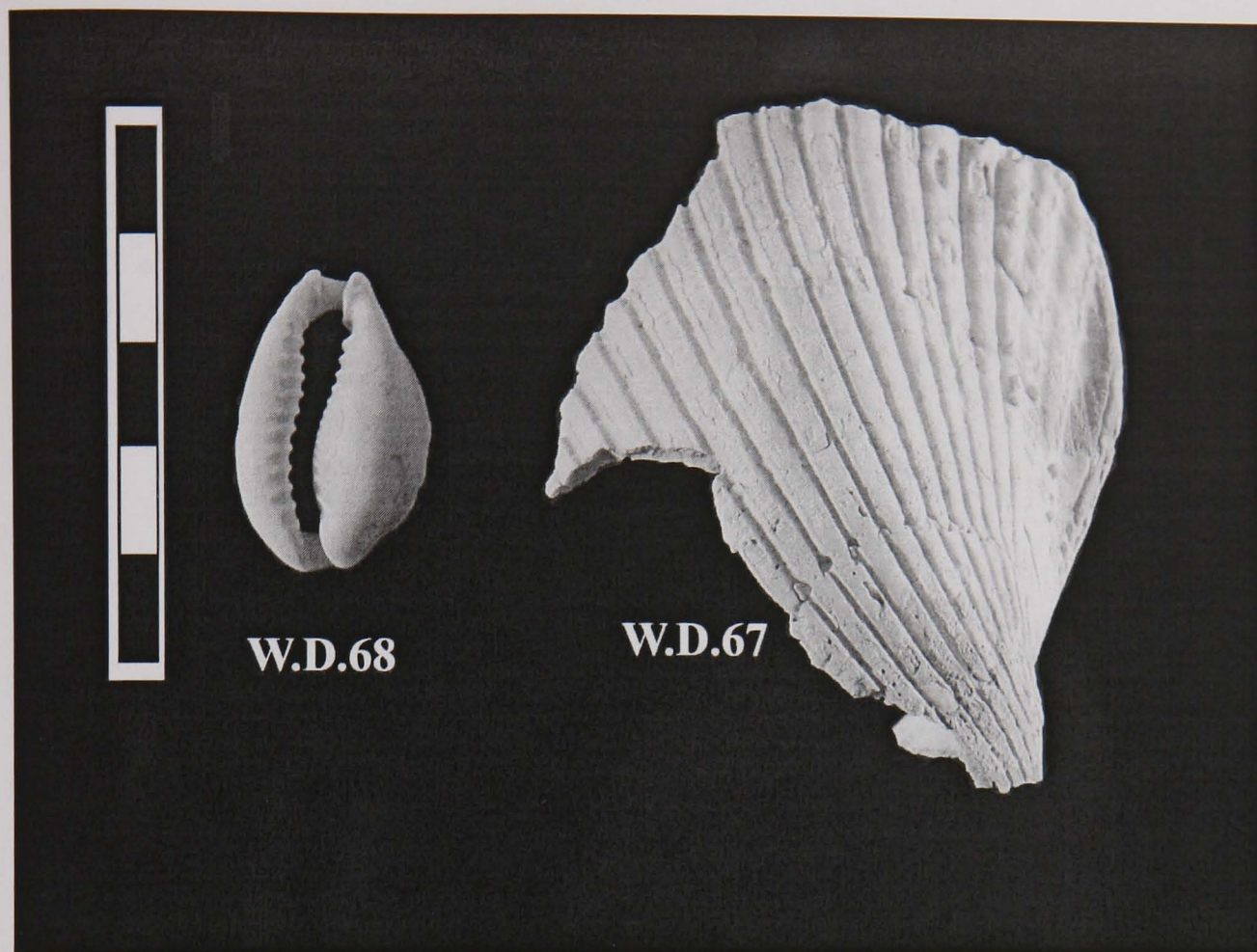


Plate 115 Shells from site CS.2.67, 14

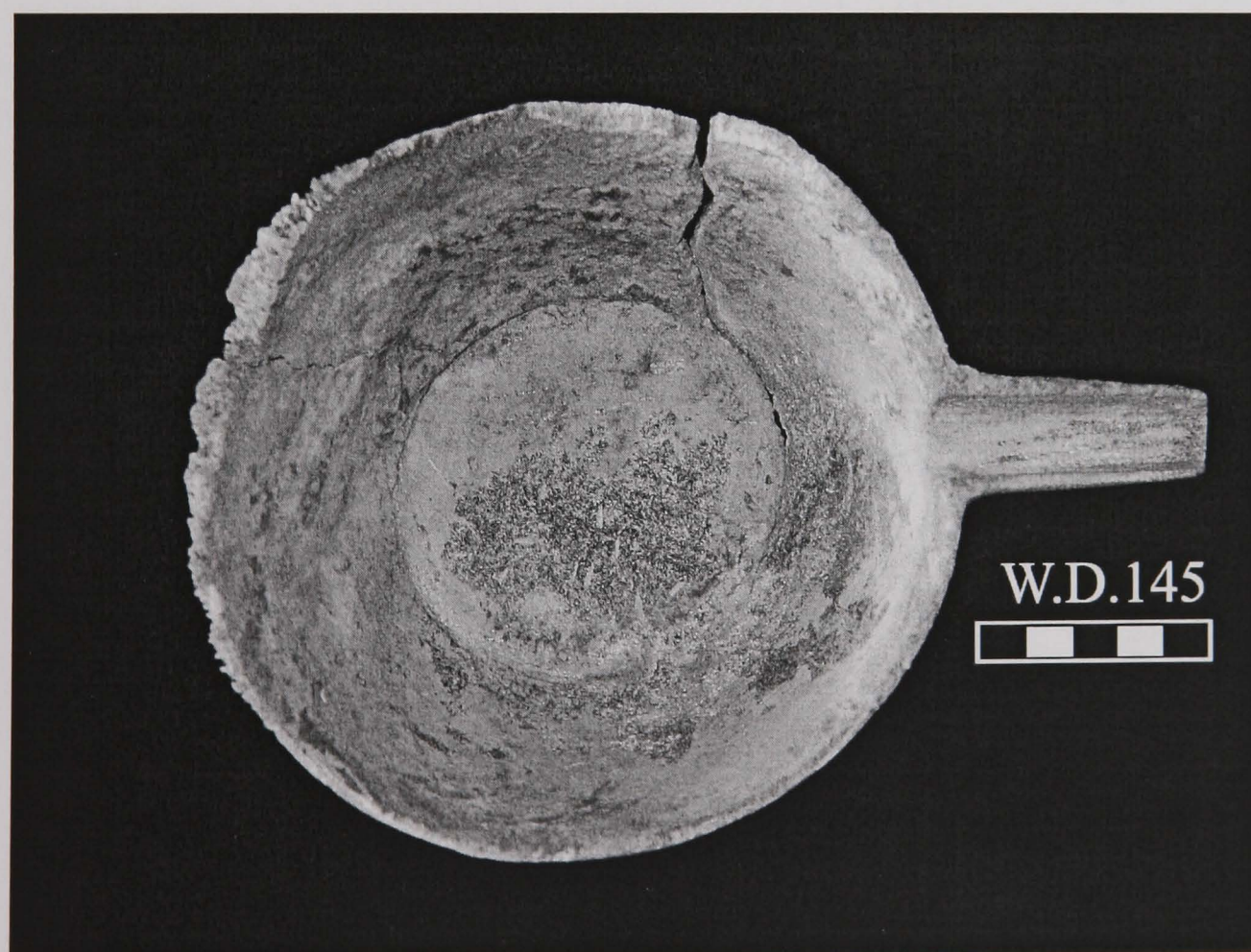


Plate 116 A spouted chlorite bowl from site CS.2.67.9



Plate 117 Two Iron Age fragments of chlorite vessels from site CS.2.67.9

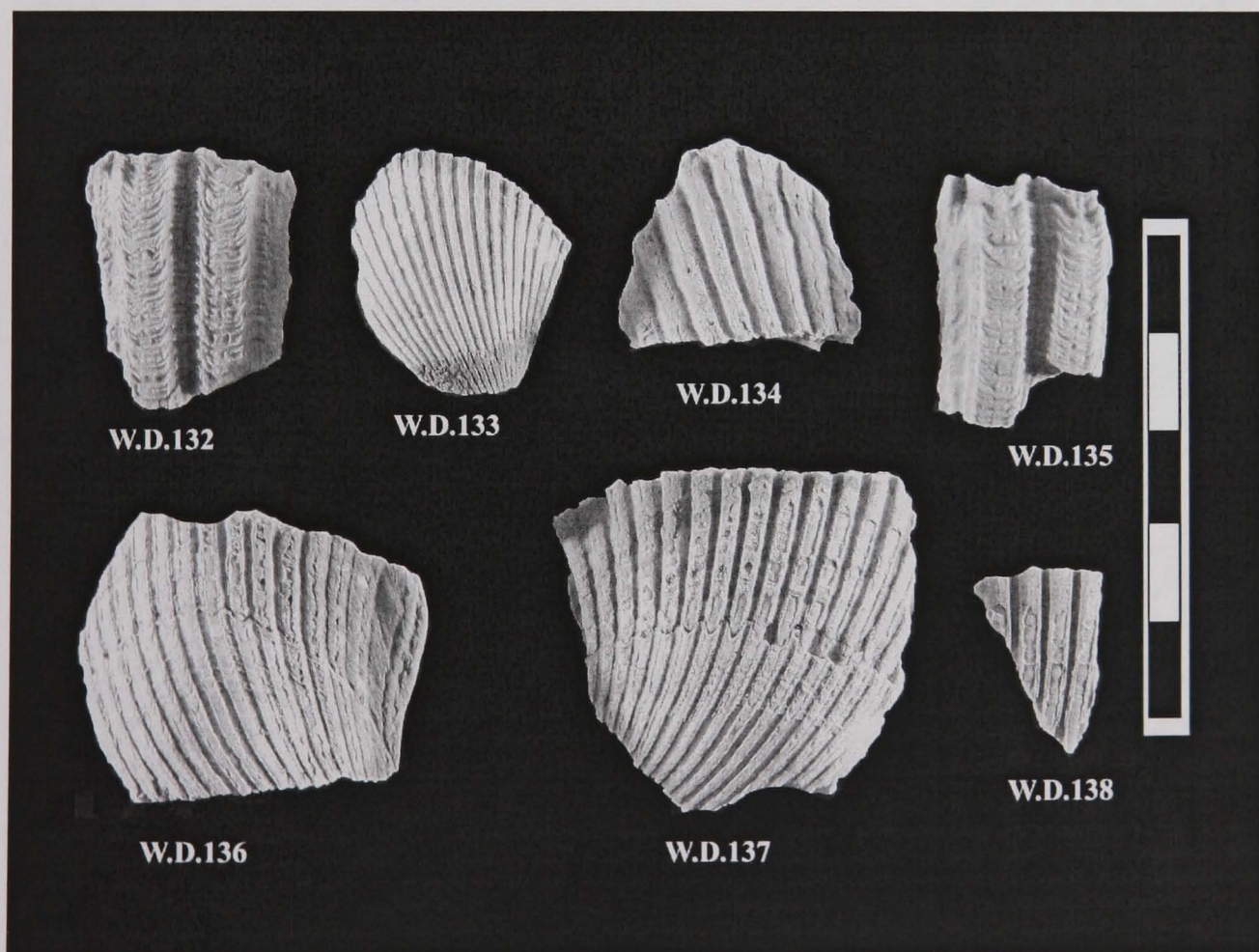


Plate 118 Fragments of shells from site CS.2.67.9



Plate 119 Mahleya-type tomb before excavation at site CS.2.50.1



Plate 120 Covering slabs of one of the excavated tombs at Mahleya site CS.2.50.1



Plate 121 Burial chamber of Mahleya Type tomb after excavation at site CS.2.50.1



Plate 122 Remains of stone structures at site CS.2.50.2

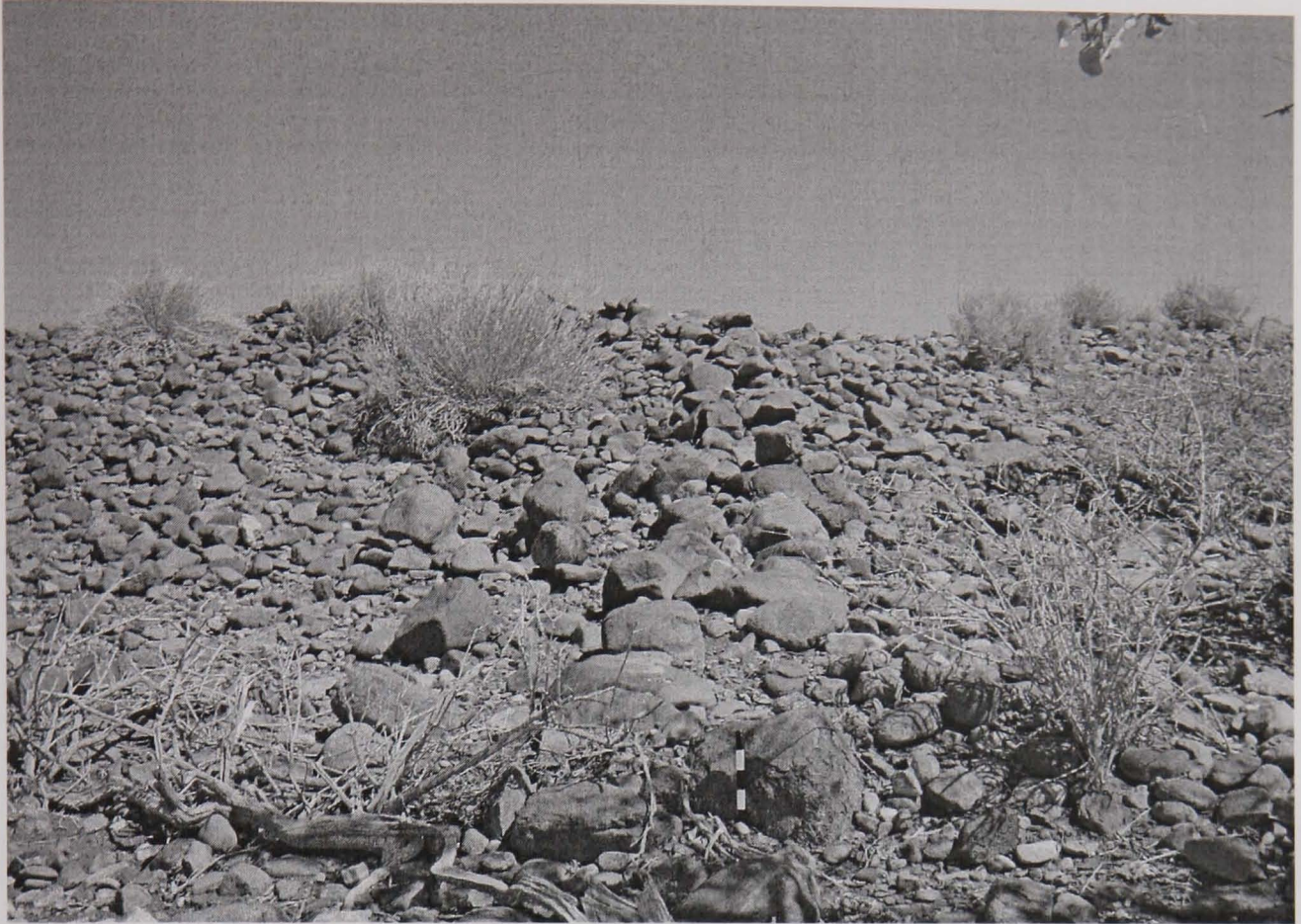


Plate 123 Remains of stone structures at site CS.2.50.2



Plate 124 Remains of stone structures at site CS.2.50.2



Plate 125 Islamic cemetery at site CS.2.50.4



Plate 126 Remains of stone structures at site CS.2.50.3



Plate 127 Possibly disturbed Hafit cairn with white creamy soil at site CS.2.50.3



Plate 128 Horseshoe stone structure at site CS.2.50.3



Plate 129 Remains of stone structures at site CS.2.50.5



Plate 130 Late Iron Age/Samad Mahleya-type tomb at site CS.2.51.2



Plate 131 Remains of stone structures on the edge and slope of Wadi Mahram at site CS.2.51.6



Plate 132 Remains of stone structures on the edge and slope of Wadi Mahram at site CS.2.51.6



Plate 133 Remains of stone structures on the edge and slope of Wadi Mahram at site CS.2.51.6

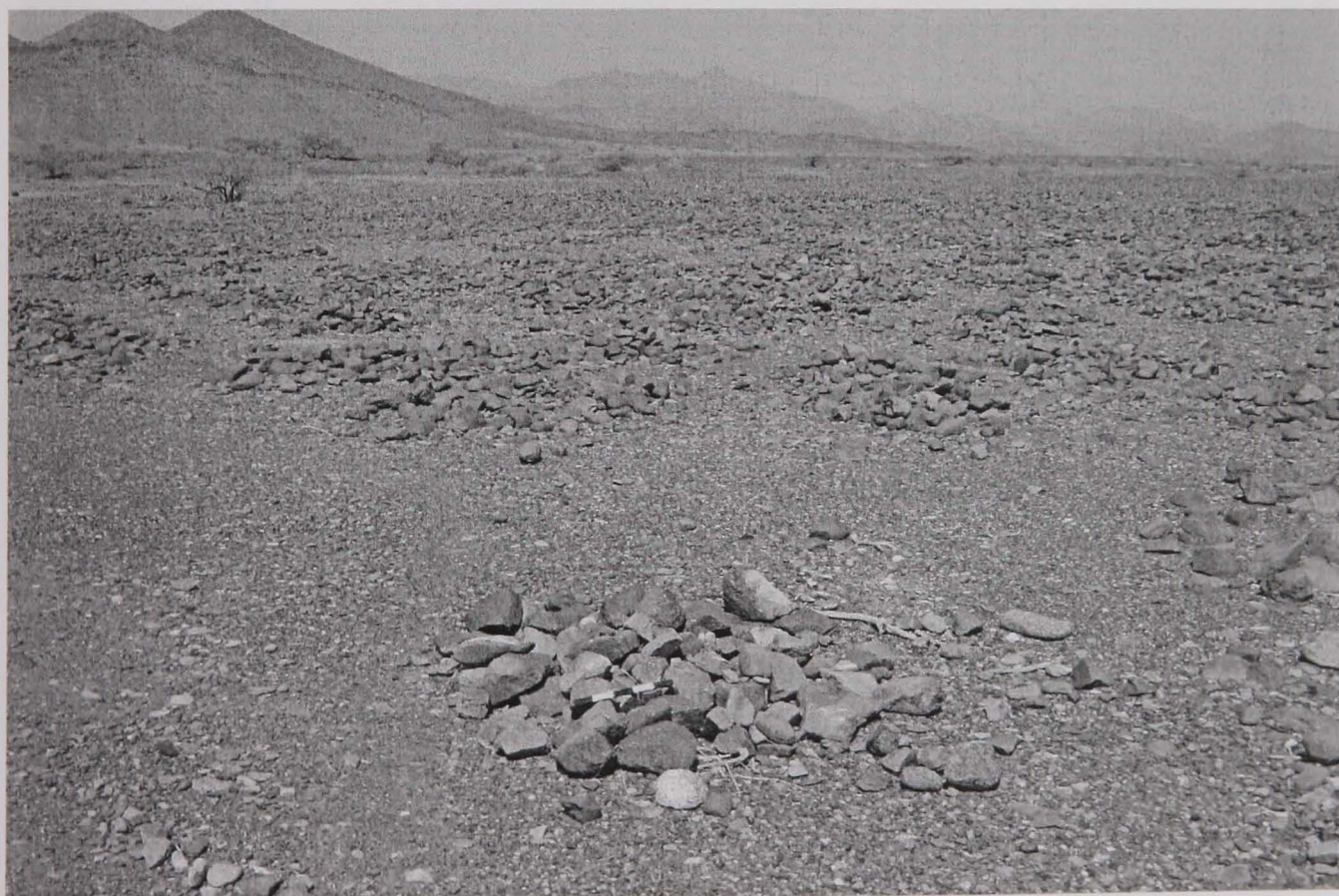


Plate 134 A group of piled stones at site CS.2.51.1



Plate 135 A group of low mounds with stone structures at site CS.2.51.1



Plate 136 Pottery sherds scatter at site CS.2.51.1



Plate 137 Hafit cairn with white creamy soil at site CS.2.51.7



Plate 138 One-course stone alignment of a Mihrab at site CS.2.51.7



Plate 139 A group of Late Iron Age/Samad Mahleya-type tombs built on Umm an-Nar structures at site CS.2.52.3



Plate 140 General view of site CS.2.43 shows the old agricultural fields, data palm grove, Umm an-Nar tomb field and other structures.



Plate 141 General view of site CS.2.43 shows the old agricultural fields, and part of the Umm an-Nar tomb field.



Plate 142 Stone wall that goes up to the yellow rocky hill at site CS.2.43, which is part of the old fields



Plate 143 Umm an-Nar tomb at site CS.2.43.2



Plate 144 Umm an-Nar tomb at site CS.2.43.2



Plate 145 Remains of stone structure at site CS.2.43.3



Plate 146 Pre-Islamic tomb, perhaps Hafit cairn, at site CS.2.43



Plate 147 Pre-Islamic tomb, perhaps Mahleya-type at site CS.2.43



Plate 148 Circular stone structure at site CS.2.43



Plate 149 Piled stones at site CS.2.43



Plate 150 Remains of stone structures at site CS.2.20



Plate 151 Remains of a square stone structures at site CS.2.20



Plate 152 General view of the remains of stone structures at site CS.2.29



Plate 153 Remains of square and rectangular stone structures at site CS.2.29



Plate 154 Remains of stone structures at site CS.2.23



Plate 155 Remains of stone structures at site CS.2.23



Plate 156 Semi-oval stone structure at site CS.2.57



Plate 157 Rectangular stone structure at site CS.2.57



Plate 158 Stone structure with possible two corner circular towers or probably Umm an-Nar tombs at site CS.2.57



Plate 159 Remains of stone structure at site CS.2.57



Plate 160 A group of piled stones at site CS.3.4



Plate 161 Piled stones at site CS.3.4

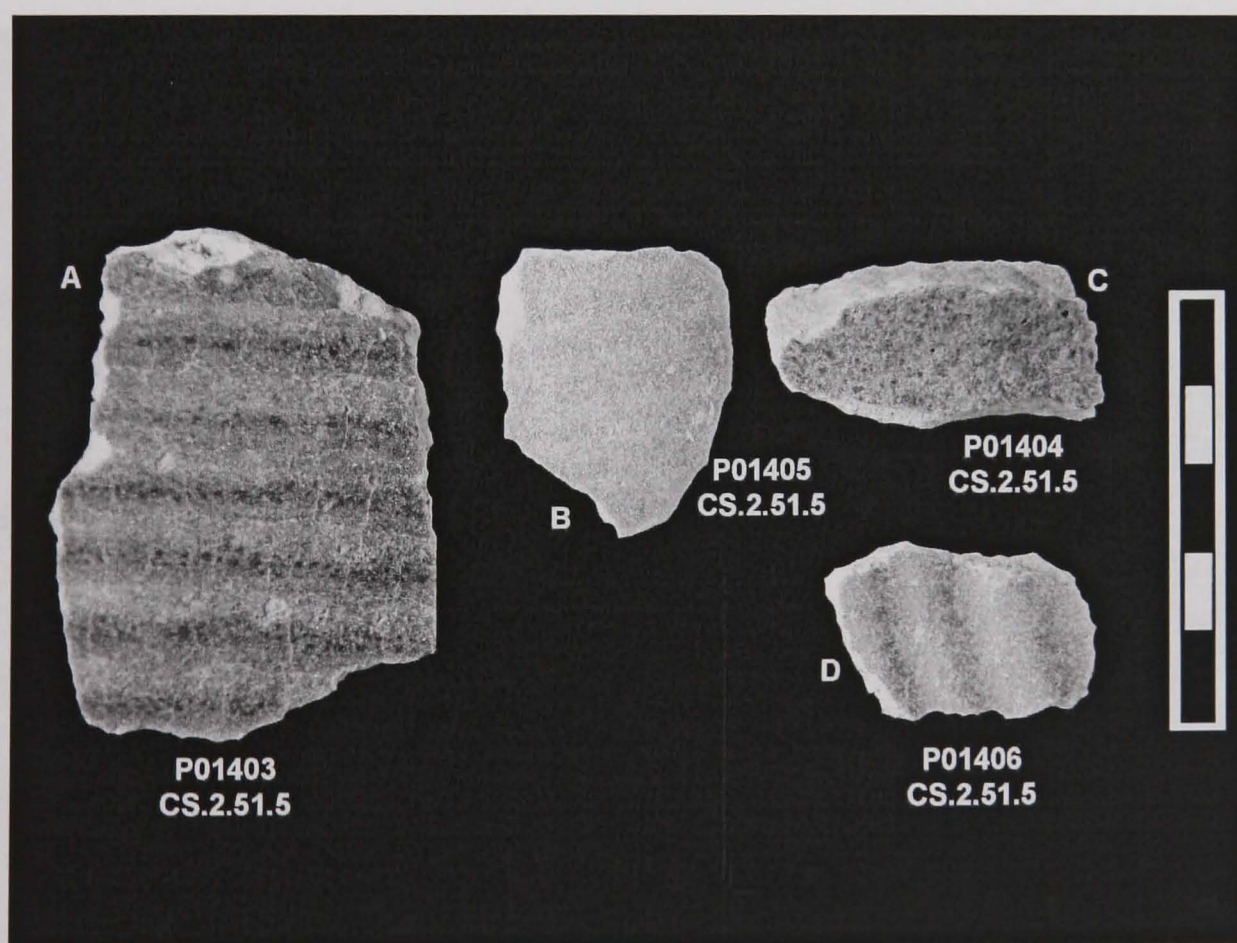


Plate 162 Possible Early Islamic Green-glazed pottery

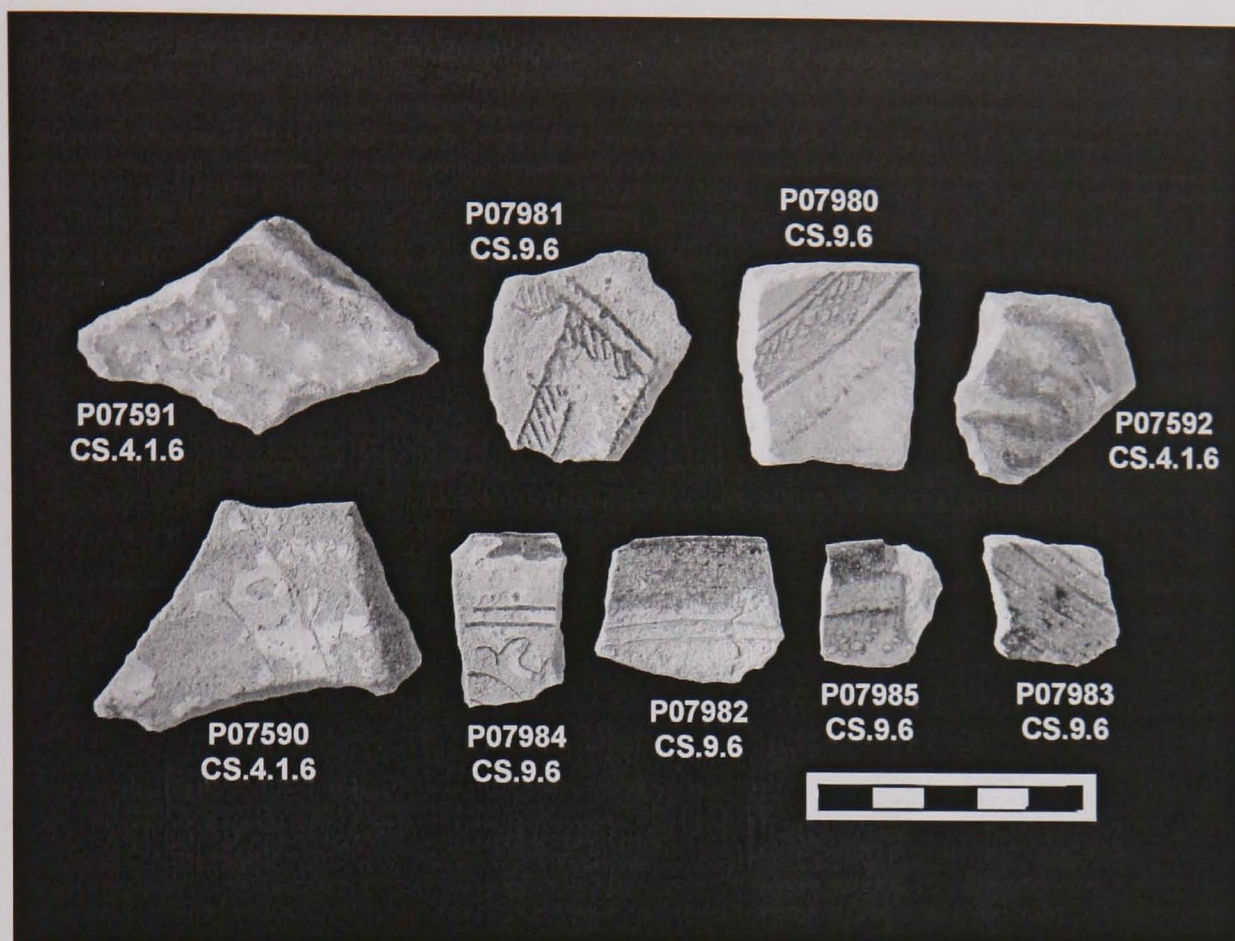


Plate 163 Collection of Middle Islamic Sgraffiato pottery sherds



Plate 164 Stone arch plastered with mud or Omani sarooj at site CS.3.5.2



Plate 165 Stone arch and its corridor plastered with mud or Omani sarooj at site CS.3.5.2

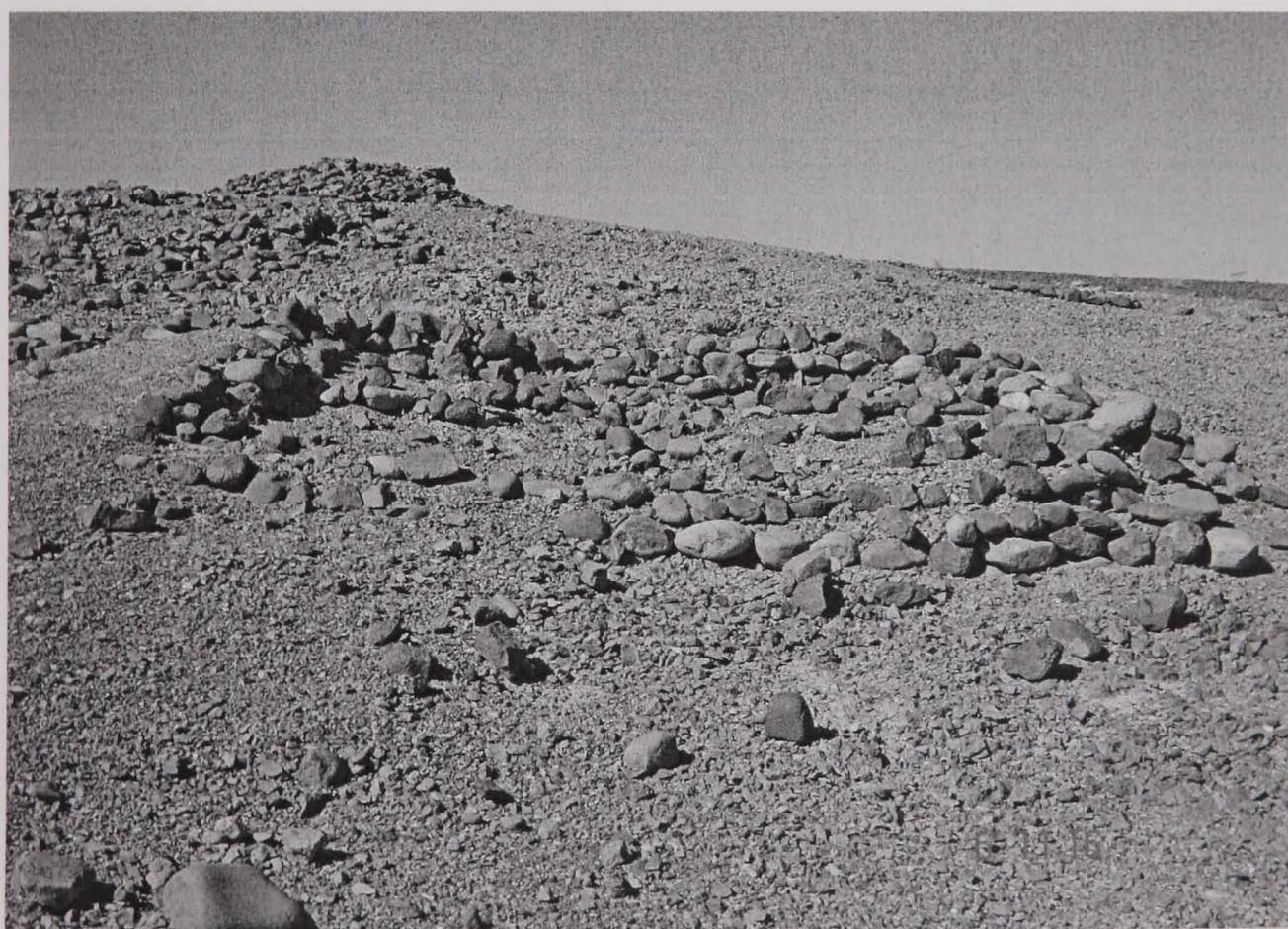


Plate 166 Stone structures at site CS.3.5.2



Plate 167 Corner tower at site CS.3.5.2



Plate 168 Mudbrick-stone structures at site CS.3.5.1



Plate 169 Mudbrick-stone structures at site CS.3.5.1



Plate 170 Old agricultural fields at site CS.3.5.3

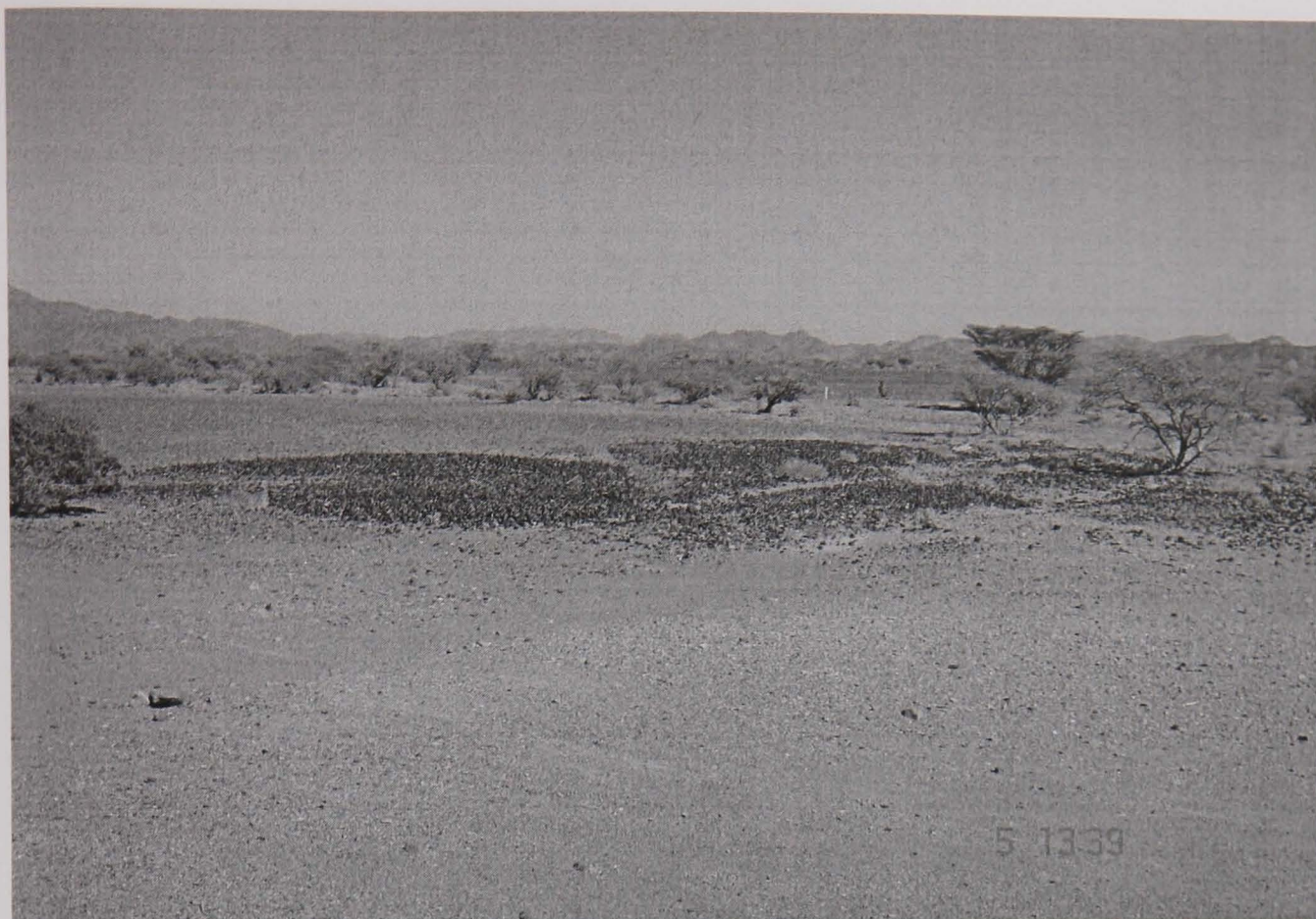


Plate 171 Slag concentration at site CS.3.7.2



Plate 172 Rectangular stone structure at site CS.3.7.3

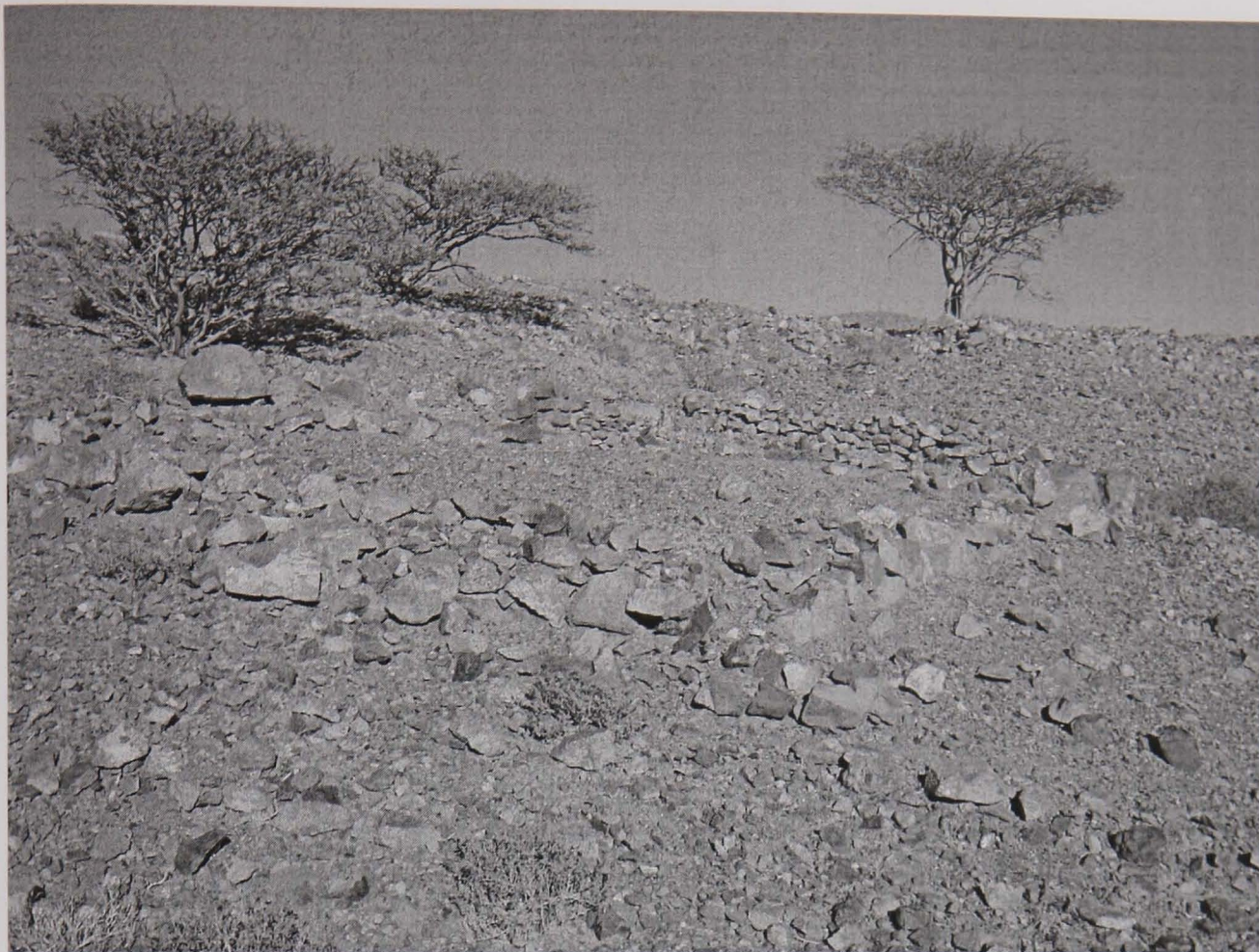


Plate 173 Rectangular stone structure on a gravel hill at site CS.3.7.5



Plate 174 Islamic cemetery at site CS.3.7.1



Plate 175 Stone structures at site CS.3.7.3



Plate 176 Well and basin at site CS.3.7.3



Plate 177 Hafit cairn at site CS.4.2

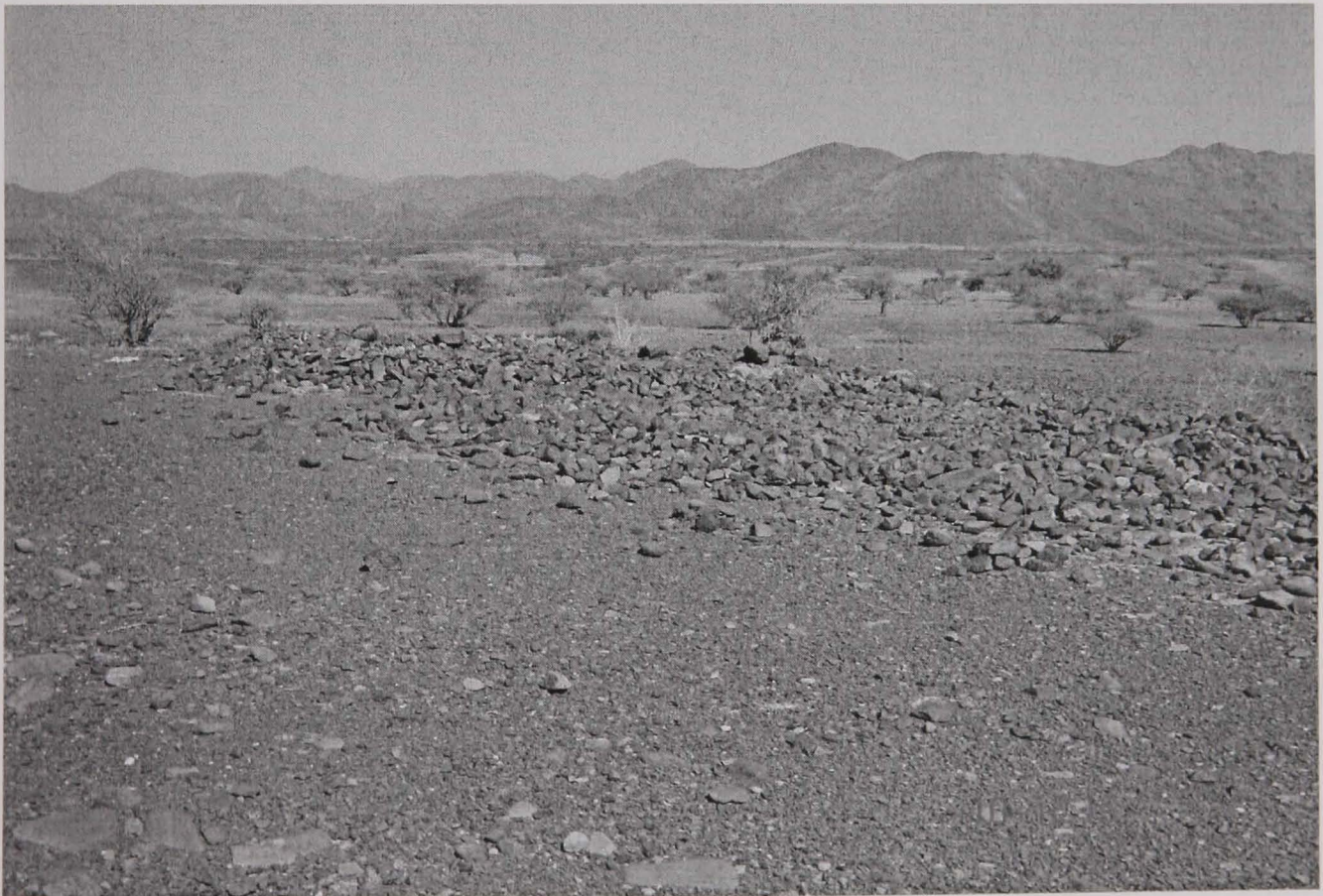


Plate 178 Stone structures at site CS.4.2



Plate 179 Stone structures on a black rocky hill at site CS.4.12.1



Plate 180 Stone structures on a black rocky hill at site CS.4.12.1

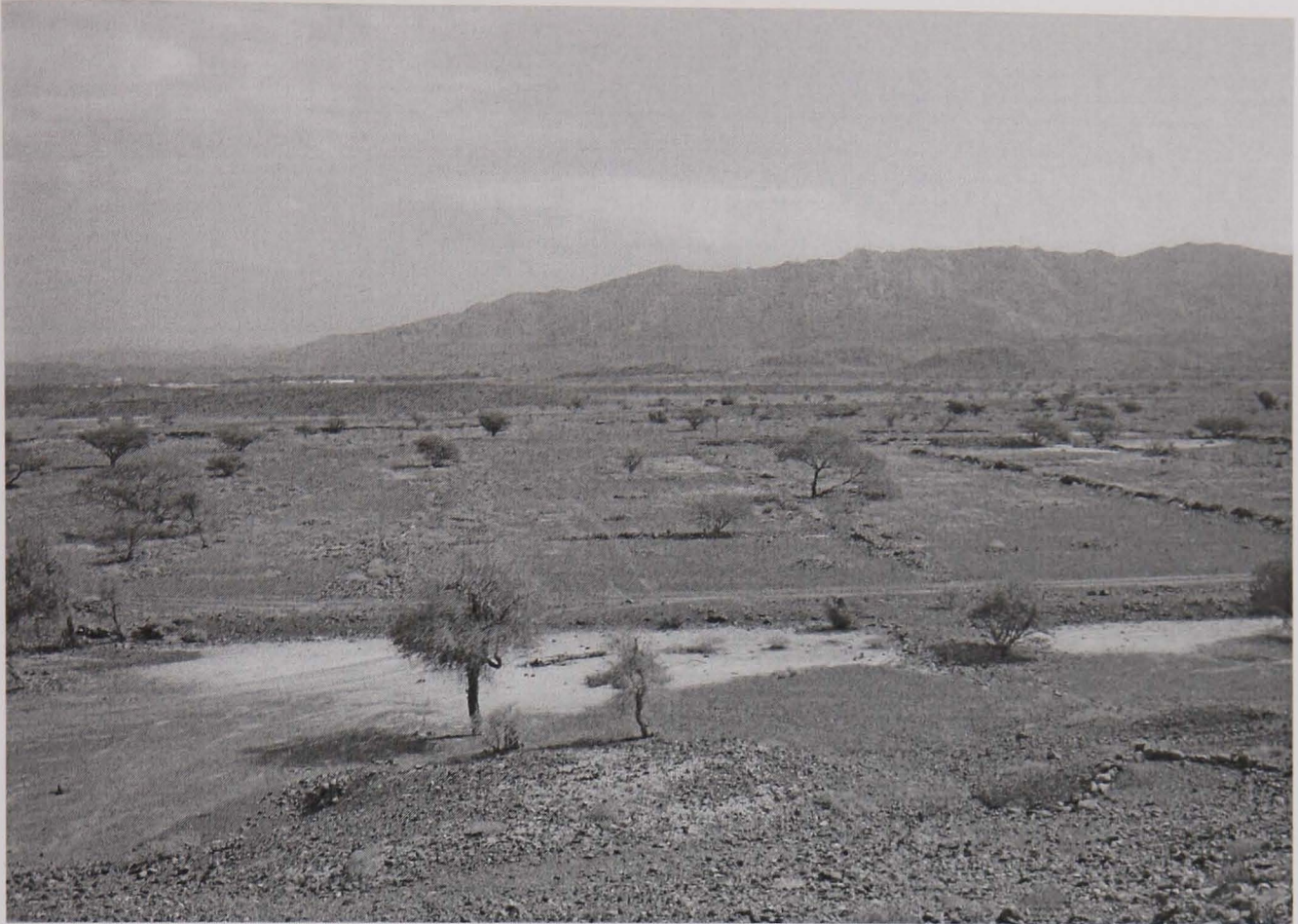


Plate 181 Old agricultural fields at site CS.4.12.2



Plate 182 A group of piled stones within the old agricultural fields at site CS.4.12.2



Plate 183 Piled stones within the old agricultural fields at site CS.4.12.2



Plate 184 Another type of piled stones of possible pre-Islamic tomb within the old agricultural fields at site CS.4.12.2



Plate 185 Islamic cemetery at site CS.4.12.3



Plate 186 Remains of stone-mudbrick structures at site CS.9.10



Plate 187 Remains of stone-mudbrick structures at site CS.9.10



Plate 188 Remains of stone-mudbrick mosque at site CS.9.10



Plate 189 Remains of possibly irrigation channel at site CS.9.10



Plate 190 A possible observation structure at site CS.2.53



Plate 191 Horseshoe structure at site CS.2.53



Plate 192 A possible animal trap structure at site CS.2.53



Plate 193 Horseshoe structure at site CS.2.53



Plate 194 Possibly disturbed Hafit cairn at site CS.2.53



Plate 195 Cut-section at site CS.2.53



Plate 196 Remains of mudbrick-stone structures at site CS.2.62



Plate 197 Remains of mudbrick-stone structures at site CS.2.62



Plate 198 Remains of stone structure at site CS.2.62



Plate 199 Old agricultural fields at site CS.2.62



Plate 200 Islamic cemetery at site CS.2.62



Plate 201 Another type of Islamic tombs at site CS.2.62



Plate 202 Piled stones of possible Pre-Islamic tomb at site CS.2.62



Plate 203 Pre-Islamic tombs, possibly Late Iron Age/Samad Mahleya-type at site CS.2.62



Plate 204 Group of stone-mudbrick structures on a rocky outcrops and their ridges and slopes as well as on the gravel terrace at site CS.5.8



Plate 205 Group of stone-mudbrick structures on a rocky outcrops and their ridges and slopes as well as on the gravel terrace at site CS.5.8



Plate 206 Stone-mudbrick walls of the structures at site CS.5.8



Plate 207 *Falaj* channel at site CS.5.8



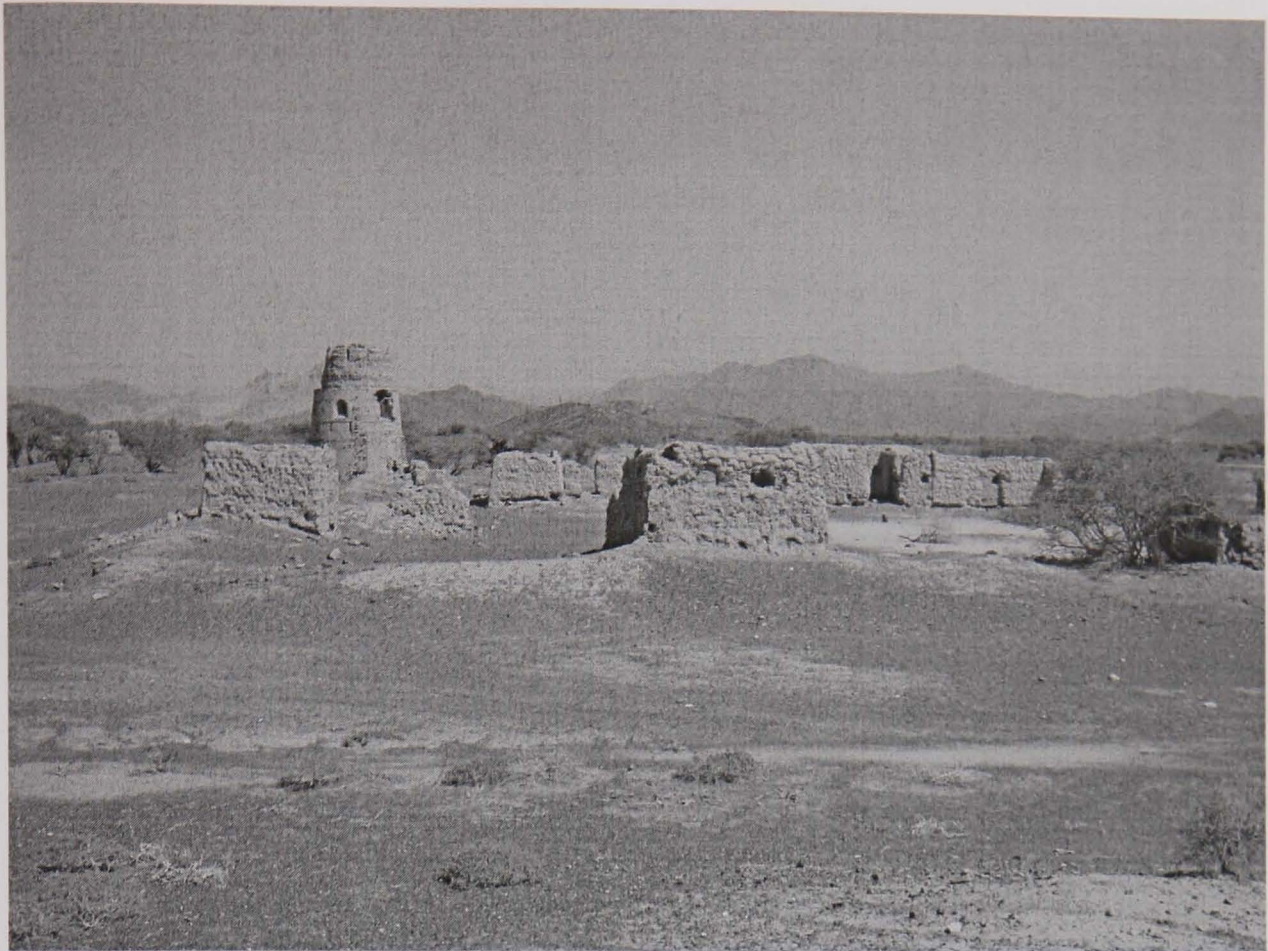
Plate 208 *Falaj* channel covered with yellow limestone slabs at site CS.5.8



Plate 209 Hafit cairns on a yellow rocky hill at site CS.5.8



Plate 210 Hafit cairn on a yellow rocky hill at site CS.5.8



**Plate 211 Stone-mudbrick Wall (Sur) surrounded with a tower includes other buildings within it
at site CS.9.5**



Plate 212 Stone-mudbrick building remains at site CS.9.5

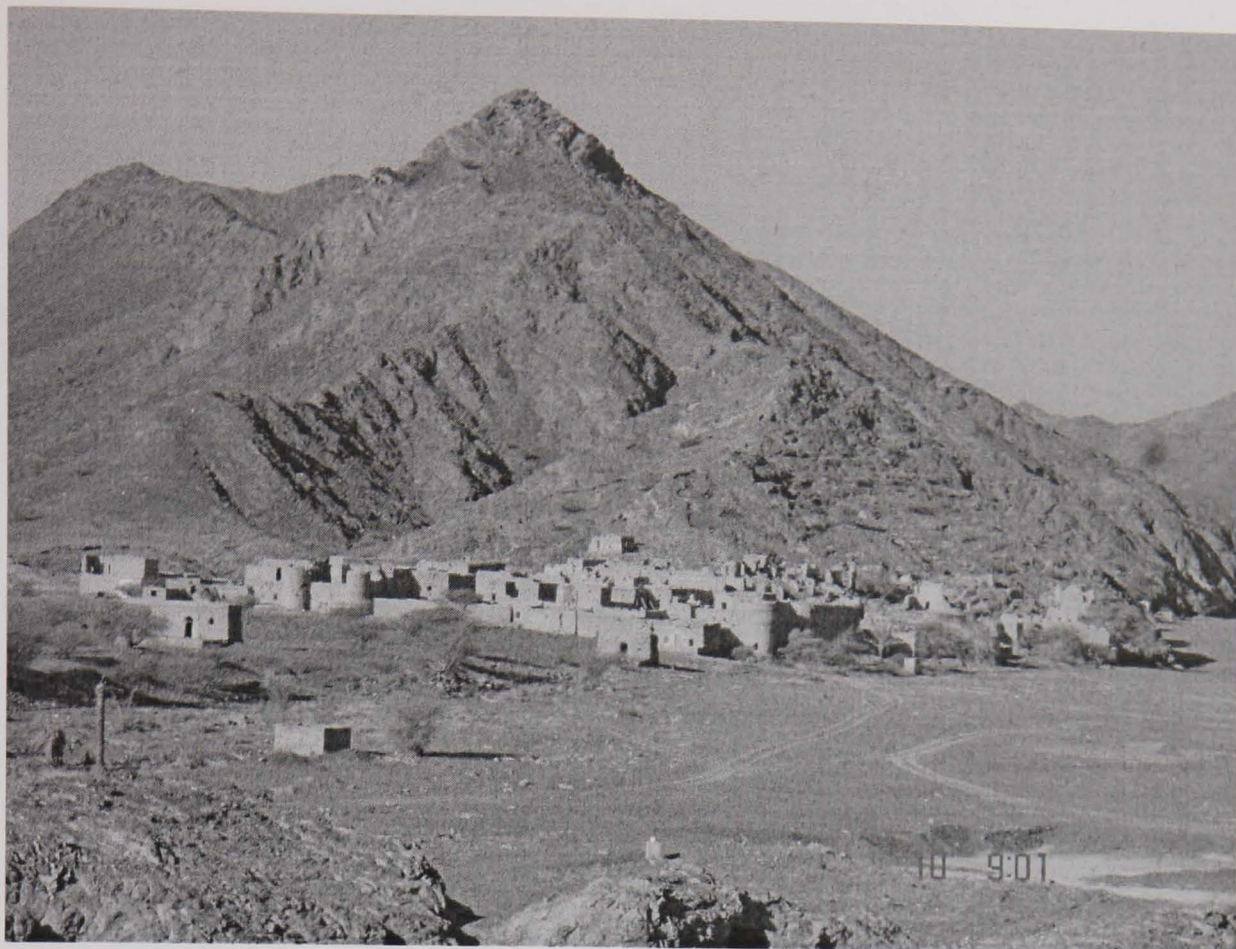


Plate 213 Al-Qaryatain old quarter (CS.4.1.1)



Plate 214 Al-Qaryatain old quarter (CS.4.1.1)



Plate 215 Al-Qaryatain old quarter (CS.4.1.1)



Plate 216 Al-Qaryatain old quarter (CS.4.1.1)



Plate 217 Ruins of fortifications at ar-Rawdhah village and the white arrow indicates the main resorted fort

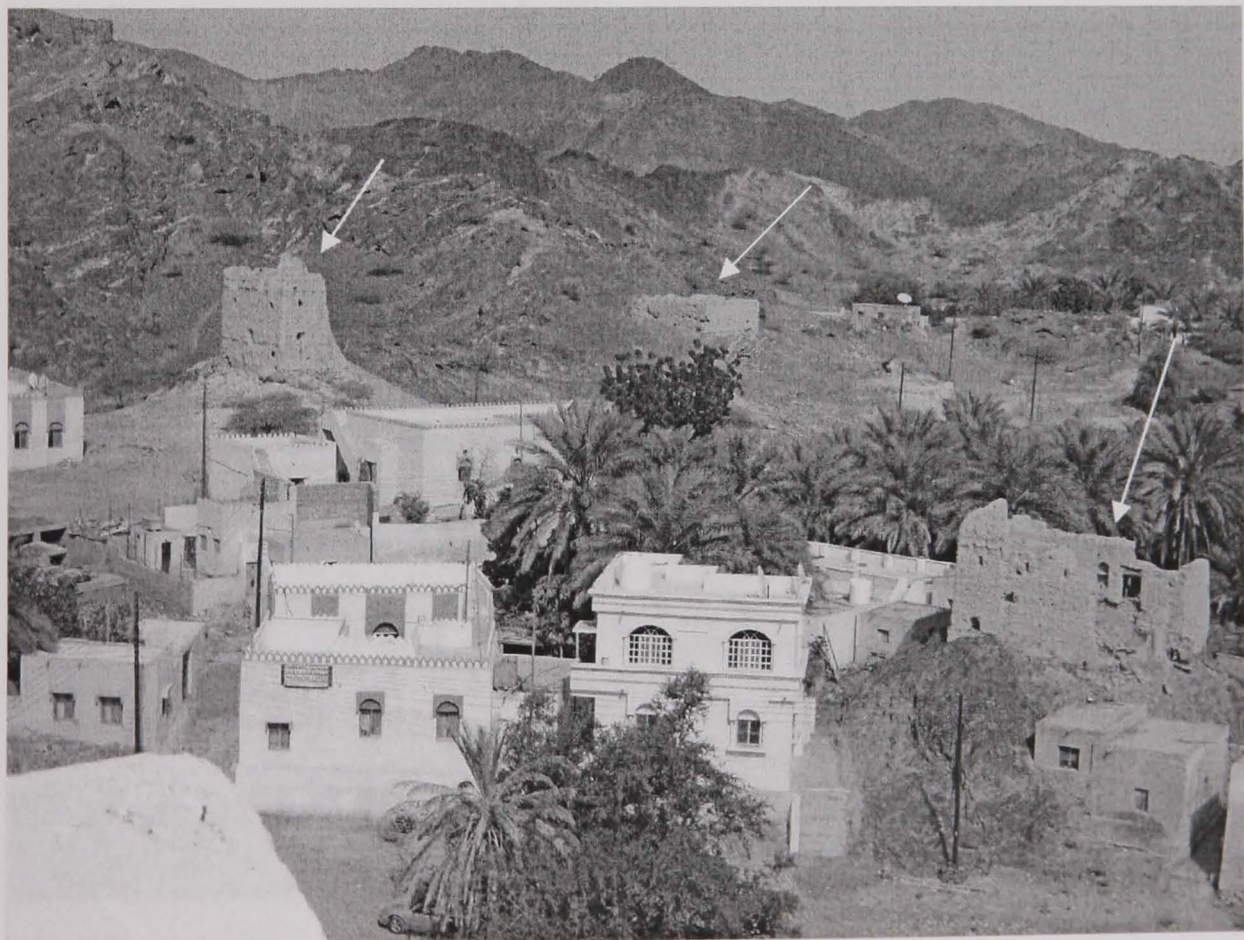


Plate 218 Ruins of fortifications at ar-Rawdhah village



Plate 219 Ruins of fortification at ar-Rawdhah village



Plate 220 ar-Rawdhah main resorted fort



Plate 221 Cairn 2 at Tawi Silaim after excavation (after de Cardi, Bell & Starling 1977: pl.30b)



Plate 222 Cairn 3 at Tawi Silaim after excavation (after de Cardi, Bell & Starling 1977: pl.32b)

Maysar-22, Bienenkorbgräber 5 und 6



Plate 223 Hafit cairns (Graves 5-6) at Maysar-22 (after Weisgerber 1980, fig.55, 93)



Plate 224 Maysar-1 before the excavation (Houses 1 & 3) (after Weisgerber 1980, fig.27, 77)



Plate 225 Aerial photograph for Maysar-1 after excavation (Houses 1 & 3) (after Weisgerber 1981, fig.1, 175)



Plate 226 The Umm an-Nar round tower at Maysar-25 after excavation (after Weisgerber 1981, fig.29, 200)

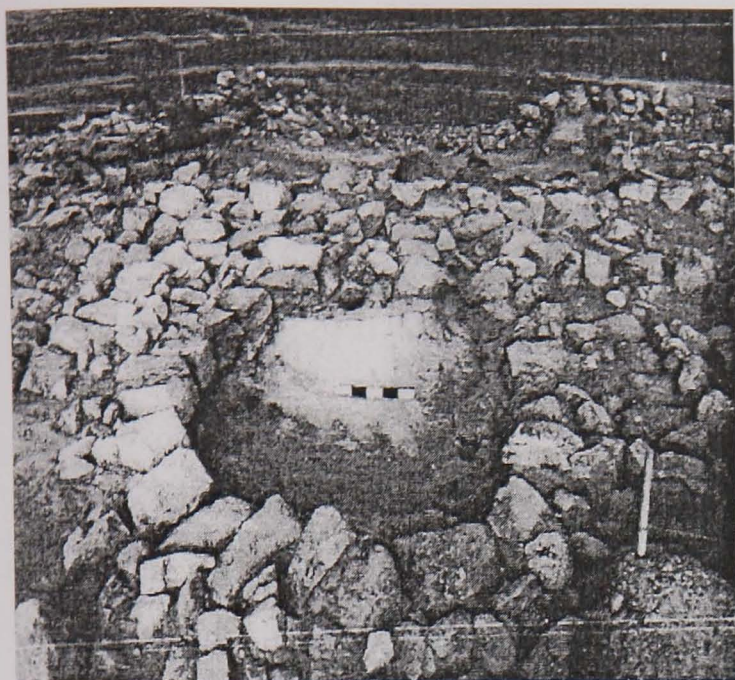


Plate 227 Grave 1 (left) and house remains (right) at Maysar-25 (after Weisgerber 1981, fig.28 & 30, 200)



Plate 228 The Lizq fortress (Lizq 1) (after Weisgerber 1981, fig.64, 227)



Plate 229 The Lizq fortress staircase (Lizq 1) (after Weisgerber 1981, fig.65, 227)



Plate 230 Stone-mudbrick houses at Maysar-34 after excavation (after Weisgerber 1981, fig.75, 234)

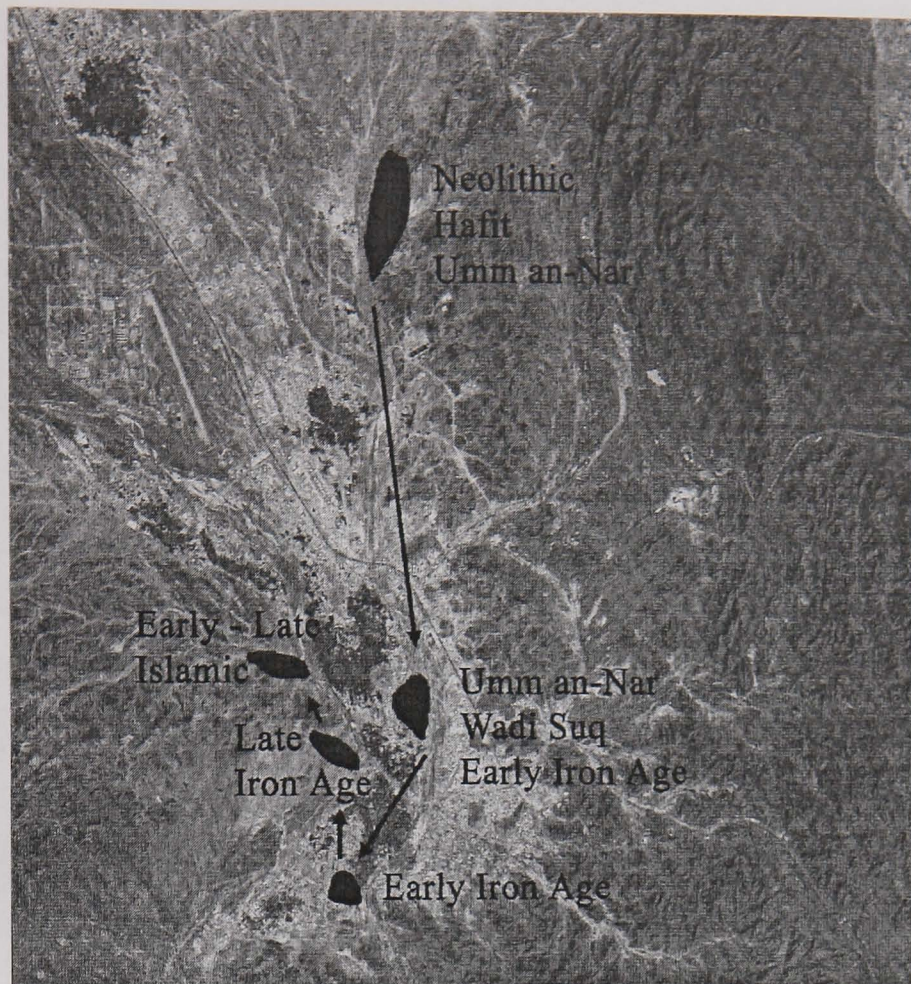


Plate 231 Development and shifts of settlement at the Ibra oasis (after Schreiber 2005: fig.15, 266)

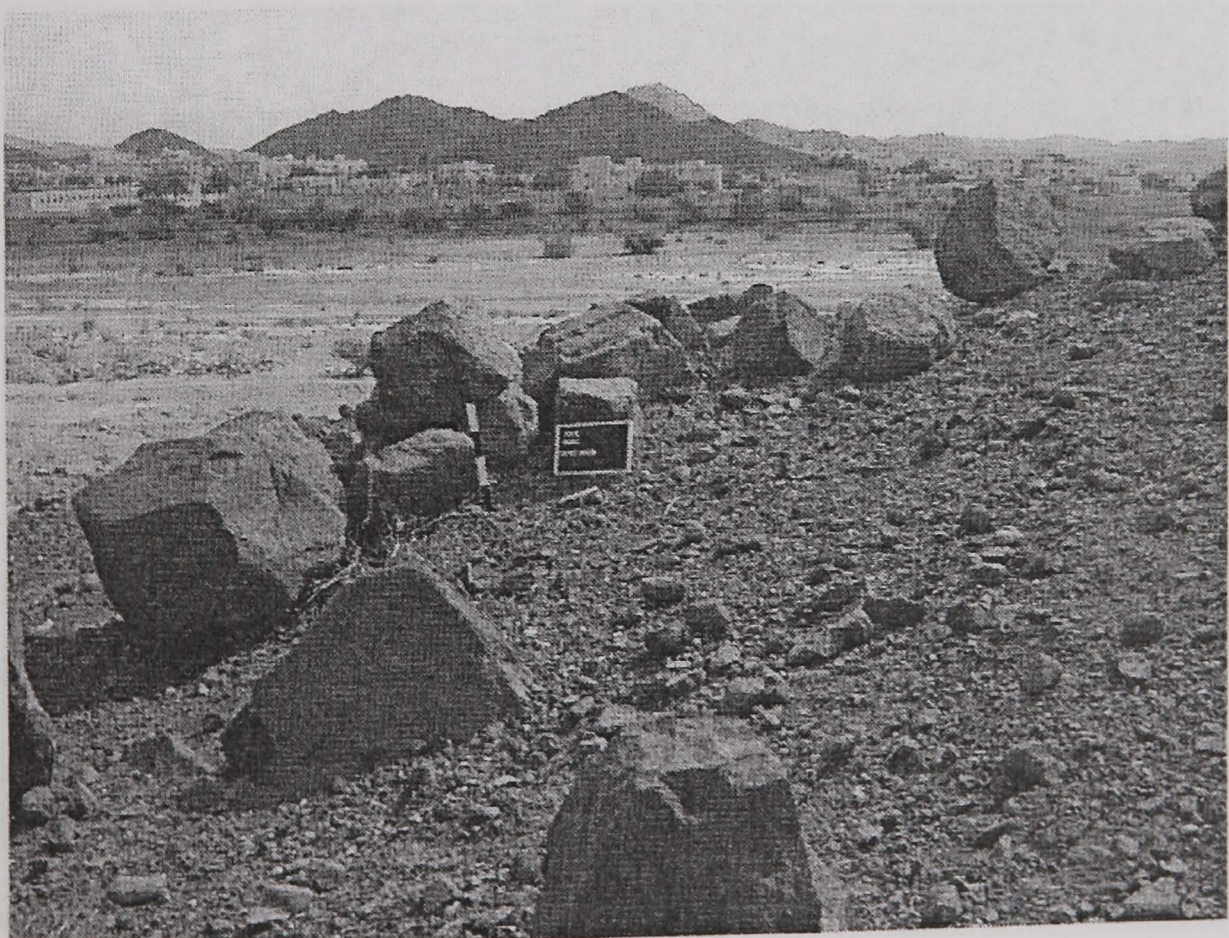


Plate 232 Remains of a circular Umm an-Nar building (I0004) from Ibra (after Schreiber 2005, fig.3, 258).



Plate 233 Grave at Wadi Suq cemetery (I0006) from Ibra (after Schreiber 2005, fig.5, 259)



Plate 234 Aerial photograph of Late Iron Age/Samad settlement (I0052) from Ibra (after Schreiber 2005, fig.7, 260)

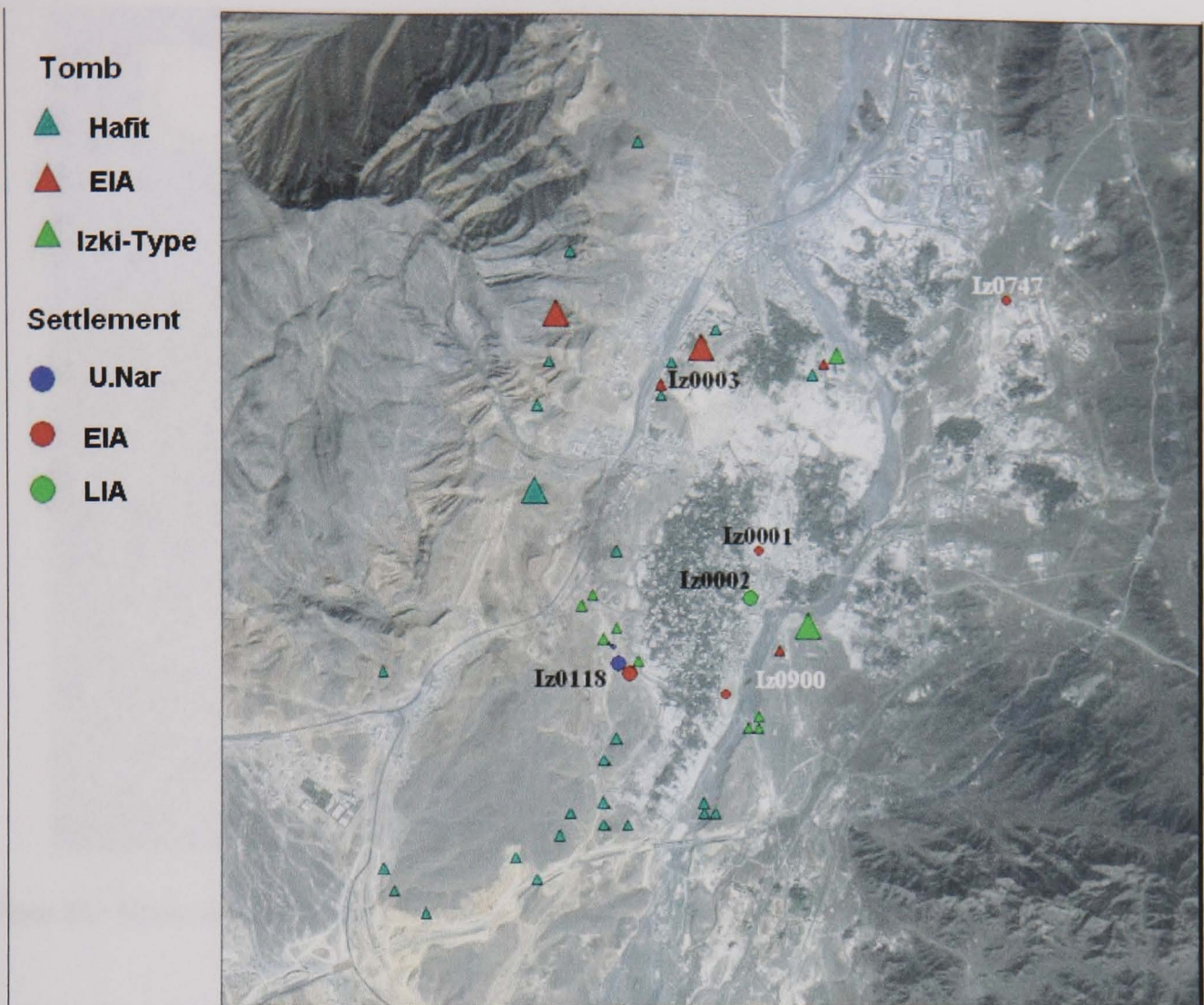


Plate 235 Important sites in Izki recorded by the Omani-German project (after Schreiber 2007a: fig.19: 123)



Plate 236 Umm an-Nar the temporal Round building from Izki site IZ0005 (After Schreiber 2007a: fig.22: 130)



Plate 237 Umm an-Nar Round building from Nizwa site Firq N02 (after Schriber 2007a: fig.45, 200)



Plate 238 Important archaeological sites in Jebel Akhdar recorded by the Omani-German project (after Schreiber 2007a: fig.61: 251)



Plate 239 Early Iron Age tomb at Jebel Akhdar, Site JA062 (after Schriber 2007a: fig.66, p: 259)



Plate 240 General view of the high rocky hills surrounding Wadi Andam



Plate 241 General view of the high rocky hills surrounding Wadi Andam



Plate 242 General view of the low rocky hills surrounding Wadi Andam



Plate 243 General view of the low rocky hills and the flat wadi bed along Wadi Andam



Plate 244 General view from the low rocky hills showing the flat wadi bed and wadi village along Wadi Andam



Plate 245 General view for the flat wadi bed and wadi village along Wadi Andam



Plate 246 The location of al-Fulayj village along the wadi bank and surrounded by rocky hills



Plate 247 Hafit cairn located on a rocky hill at site CS.1.1 to the north-west of al-Fulayj village



Plate 248 A pile of stones of possible pre-Islamic tomb al-Fulayj site CS.1.2



Plate 249 Horseshoe stone structure at al-Fulayj site CS.1.3



Plate 250 General view of the tomb field in al-Fulayj site CS.1.4



Plate 251 Hafit cairn on the tomb field at al-Fulayj site CS.1.4



Plate 252 Stone structures at al-Fulayj site CS.1.4



Plate 253 Stone structures at al-Fulayj site CS.1.4



Plate 254 Old mudbrick buildings within al-Fulayj village CS.1.5



Plate 255 Pile of stones of possible pre-Islamic tomb at al-Fulayj site CS.1.8



Plate 256 A pile of stones of unknown function at al-Fulayj site CS.1.9

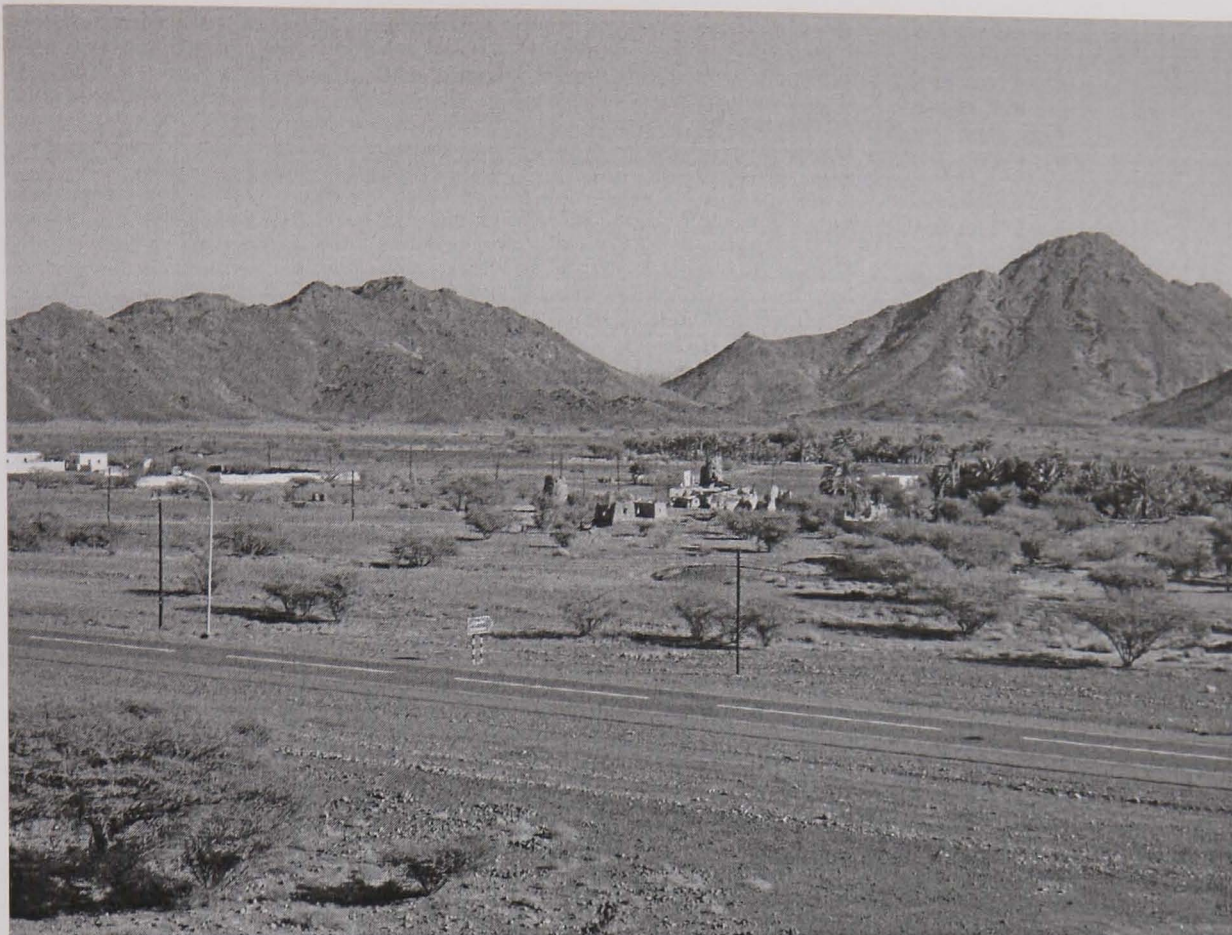


Plate 257 General view of al-Khuraish village

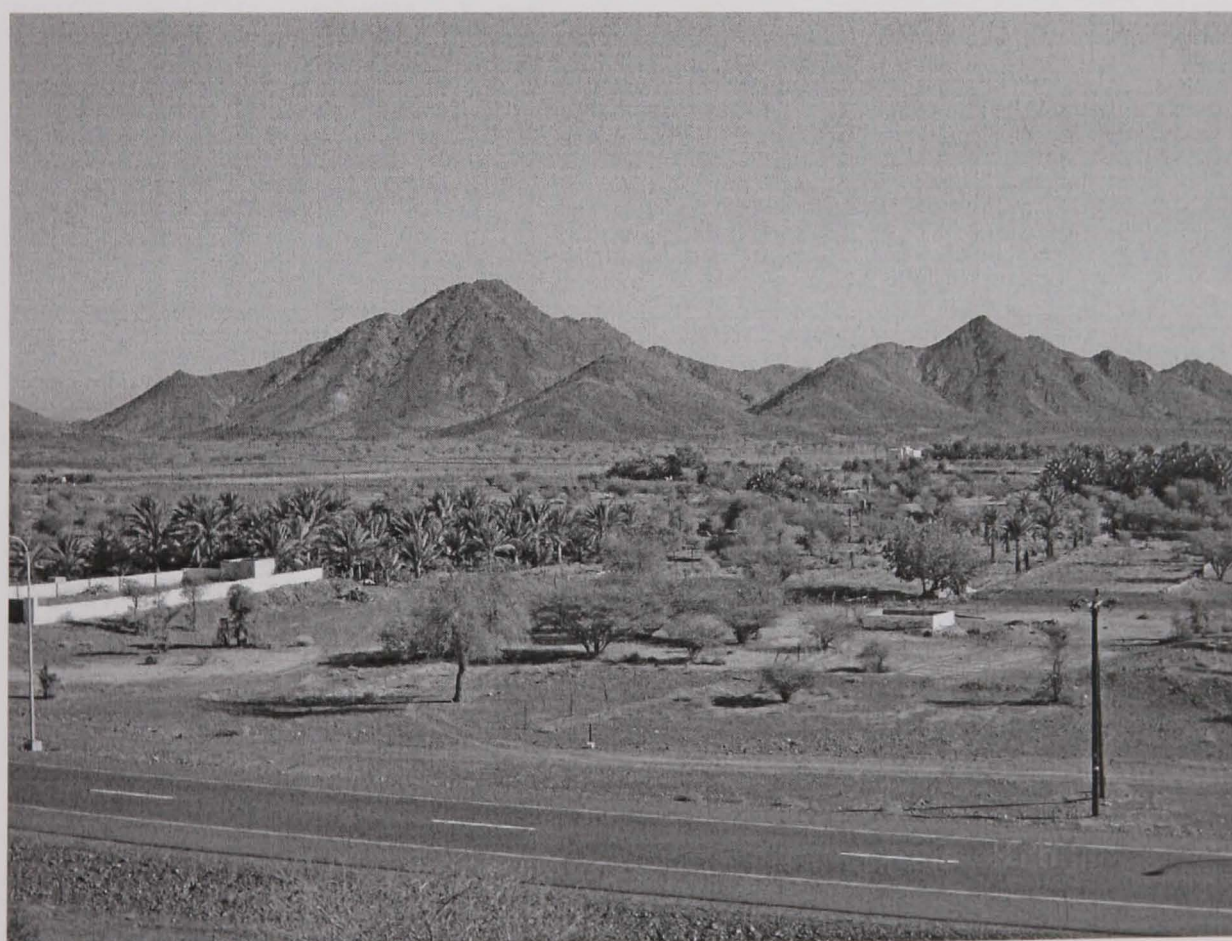


Plate 258 General view of al-Khuraish village

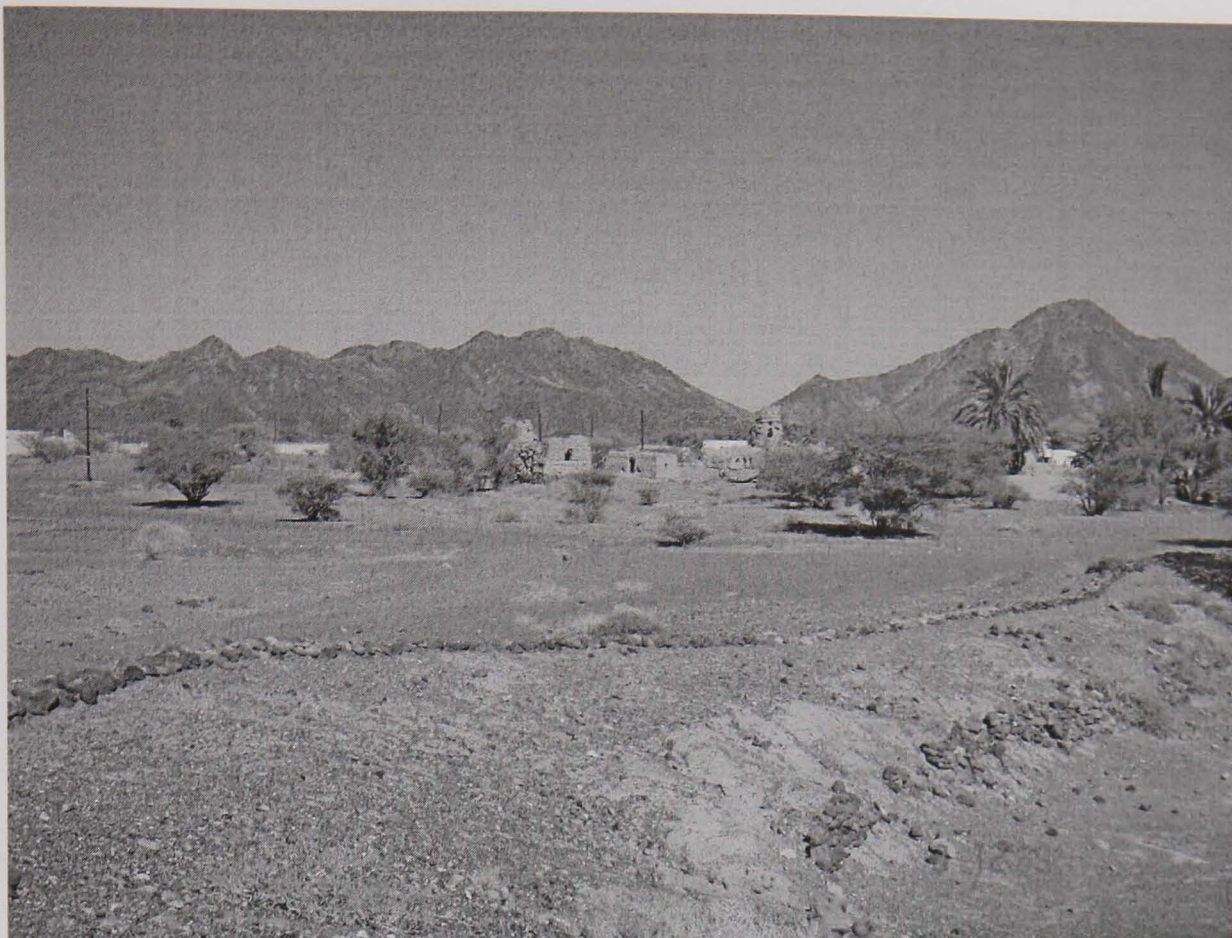


Plate 259 General view of al-Khuraish village with its mudbrick buildings, Site 3.1

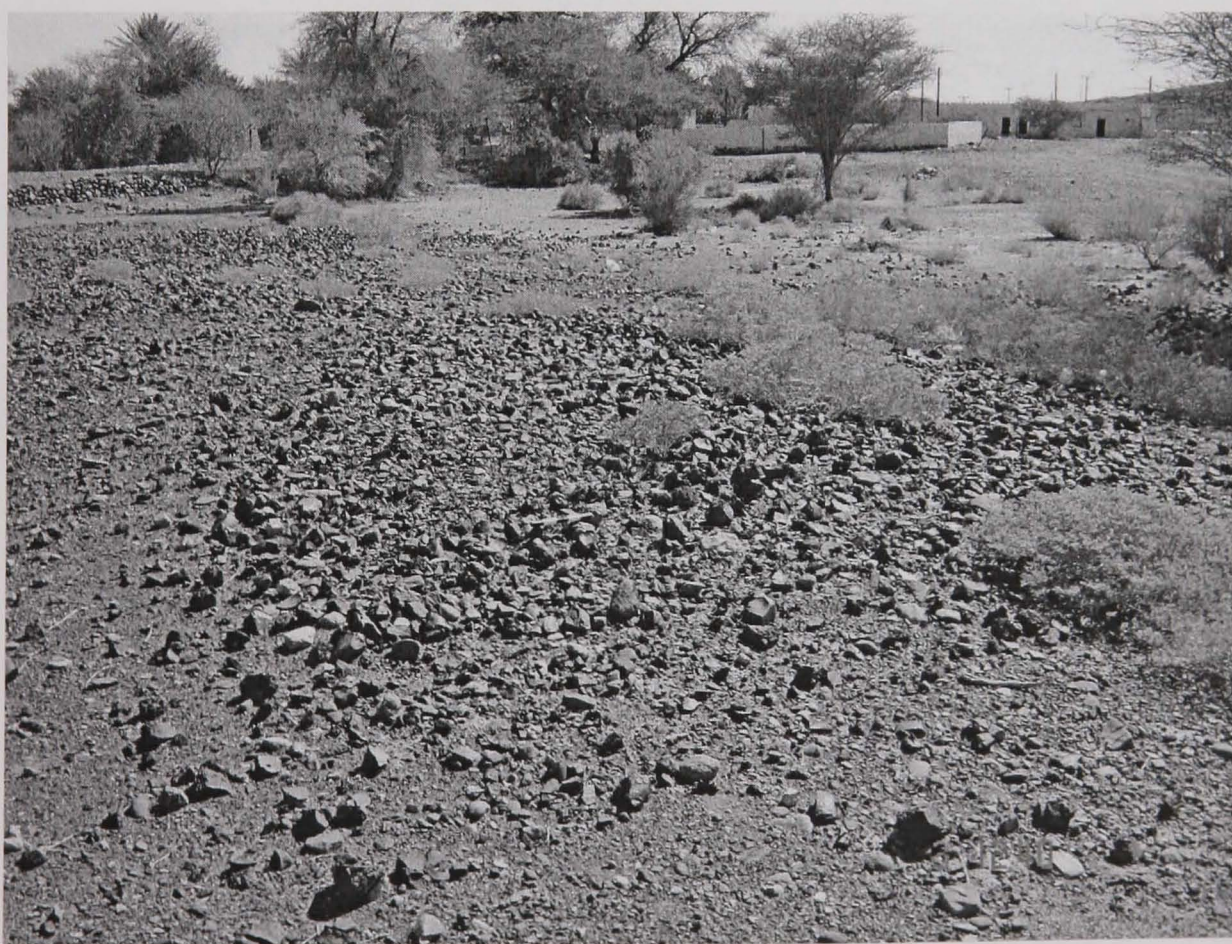


Plate 260 Slag deposition with pottery sherds at al-Khuraish village site CS.3.1

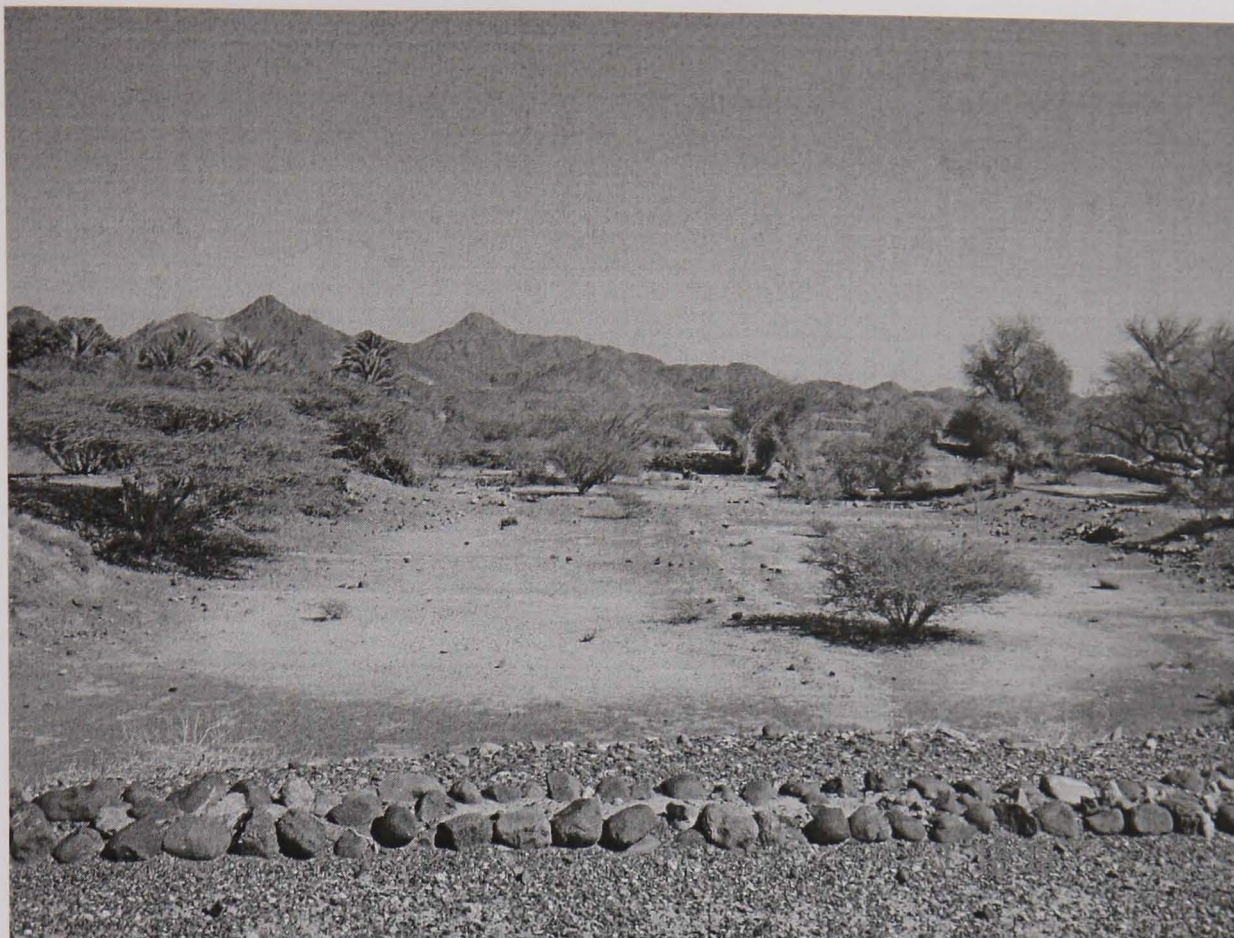


Plate 261 Traces of agricultural activity at al-Khuraish village site CS.3.1



Plate 262 A possible circular pre-Islamic tomb at al-Khuraish site CS.3.6



Plate 263 General of view of some of cairns located on a grave hill at al-Khuraish site CS.3.8



Plate 264 Cairn with white creamy soil located on a grave hill at al-Khuraish site CS.3.8

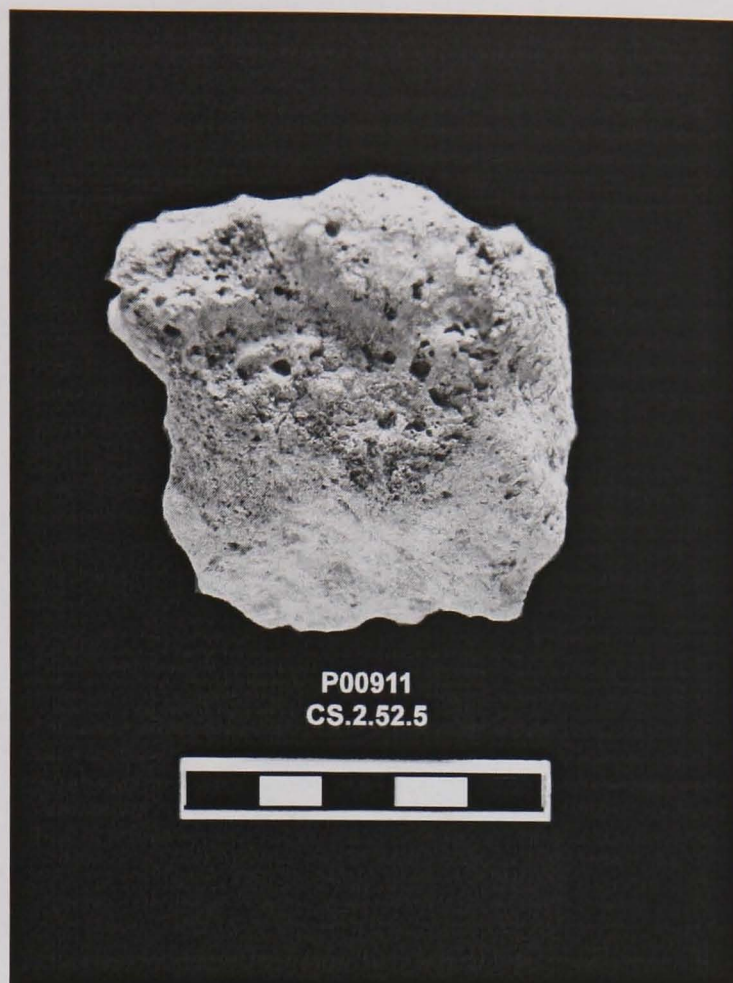


Plate 265 Pottery sherd with smelting residue from al-Khurais site CS.3.8

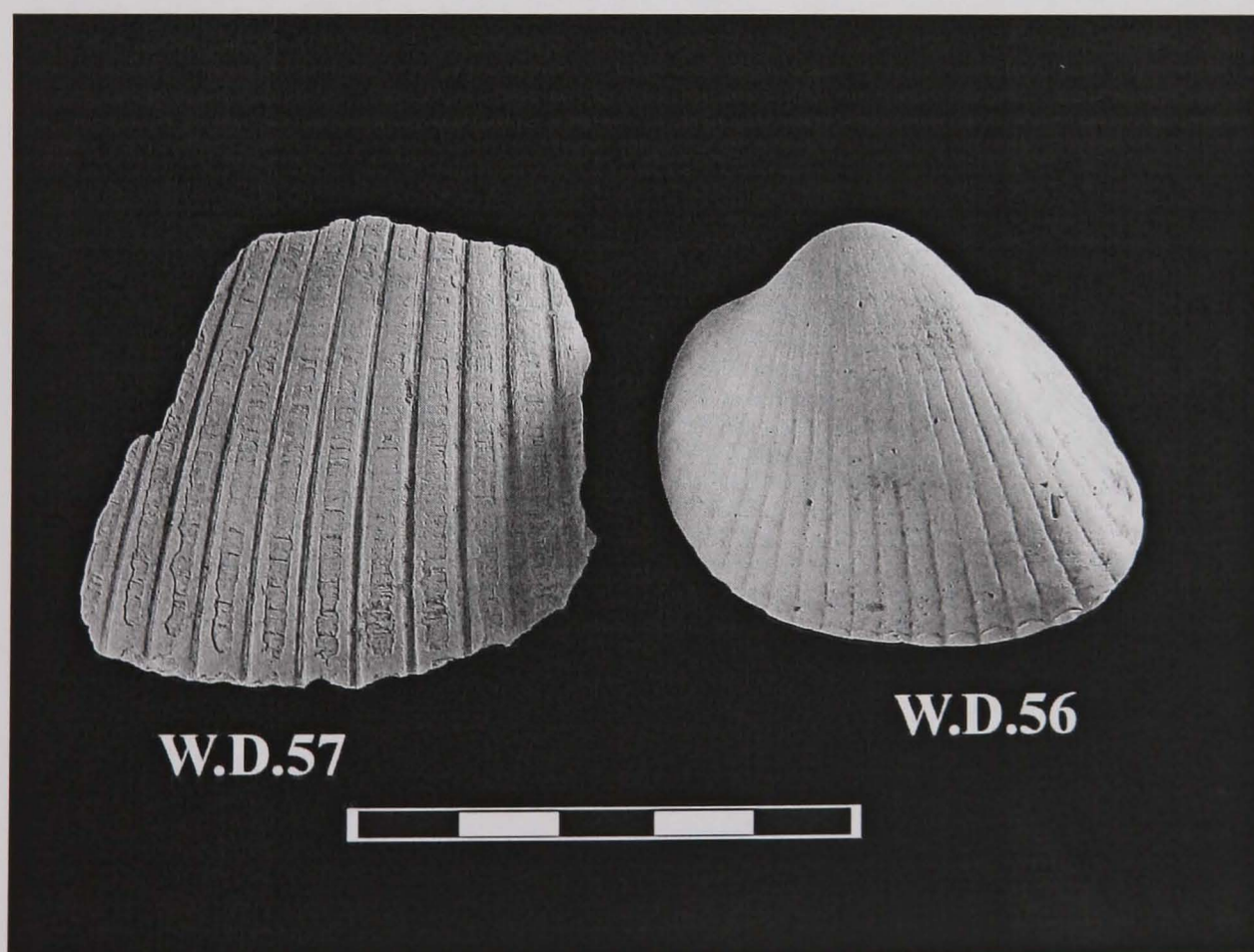


Plate 266 Shells from CS.3.8, Tomb 1



Plate 267 Islamic cemetery at al-Khuraish site CS.3.9



Plate 268 Islamic cemetery at al-Khuraish site CS.3.10



Plate 269 Pre-Islamic tombs of possibly Late Iron Age/Samad period at al-Khuraish site CS.3.10



Plate 270 Rectangular stone and mudbrick building within the Islamic cemetery at al-Khuraish site CS.3.10

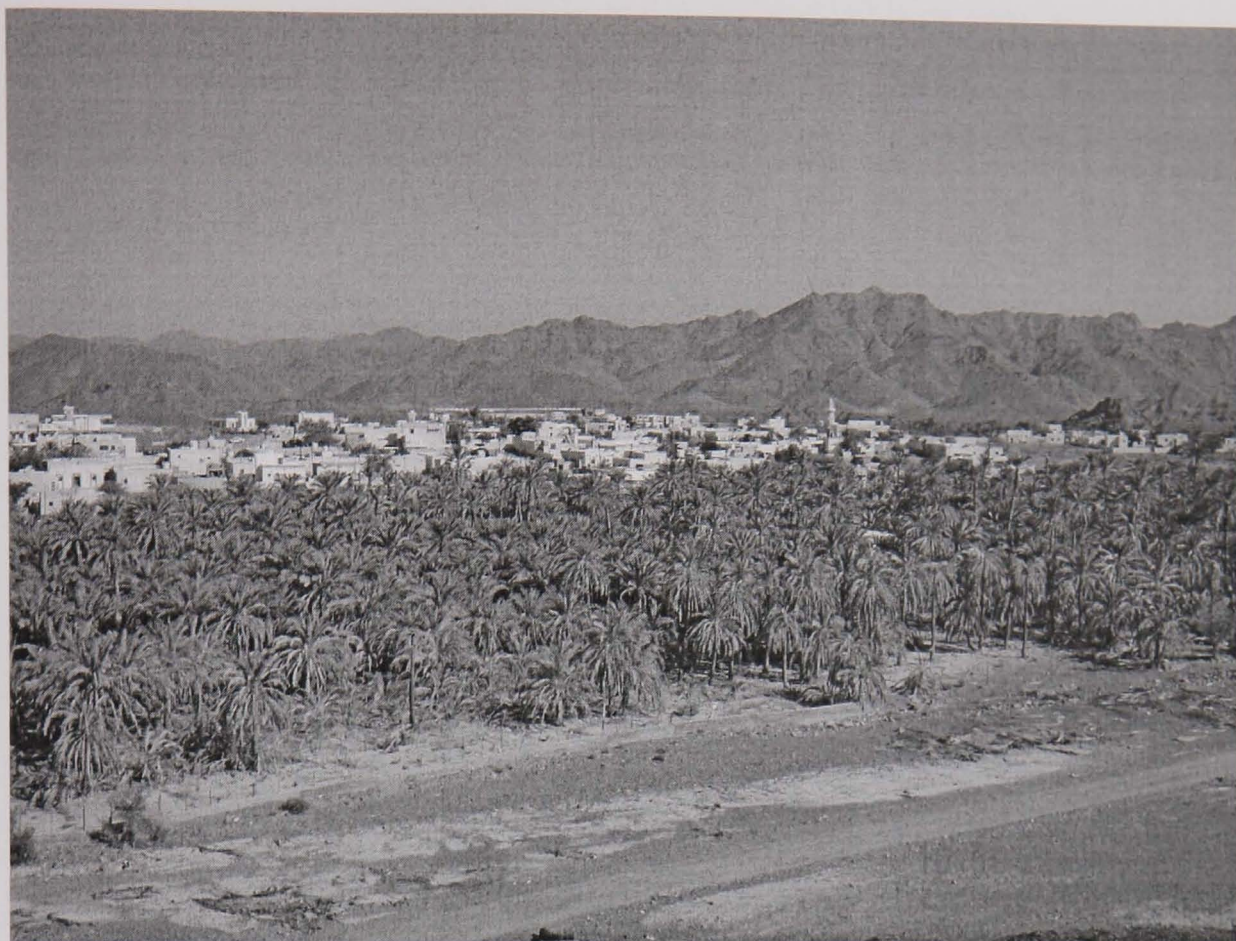


Plate 271 General view of al-Qaryatain Village along the Wadi Qant



Plate 272 General view of al-Qaryatain Village along the Wadi Qant

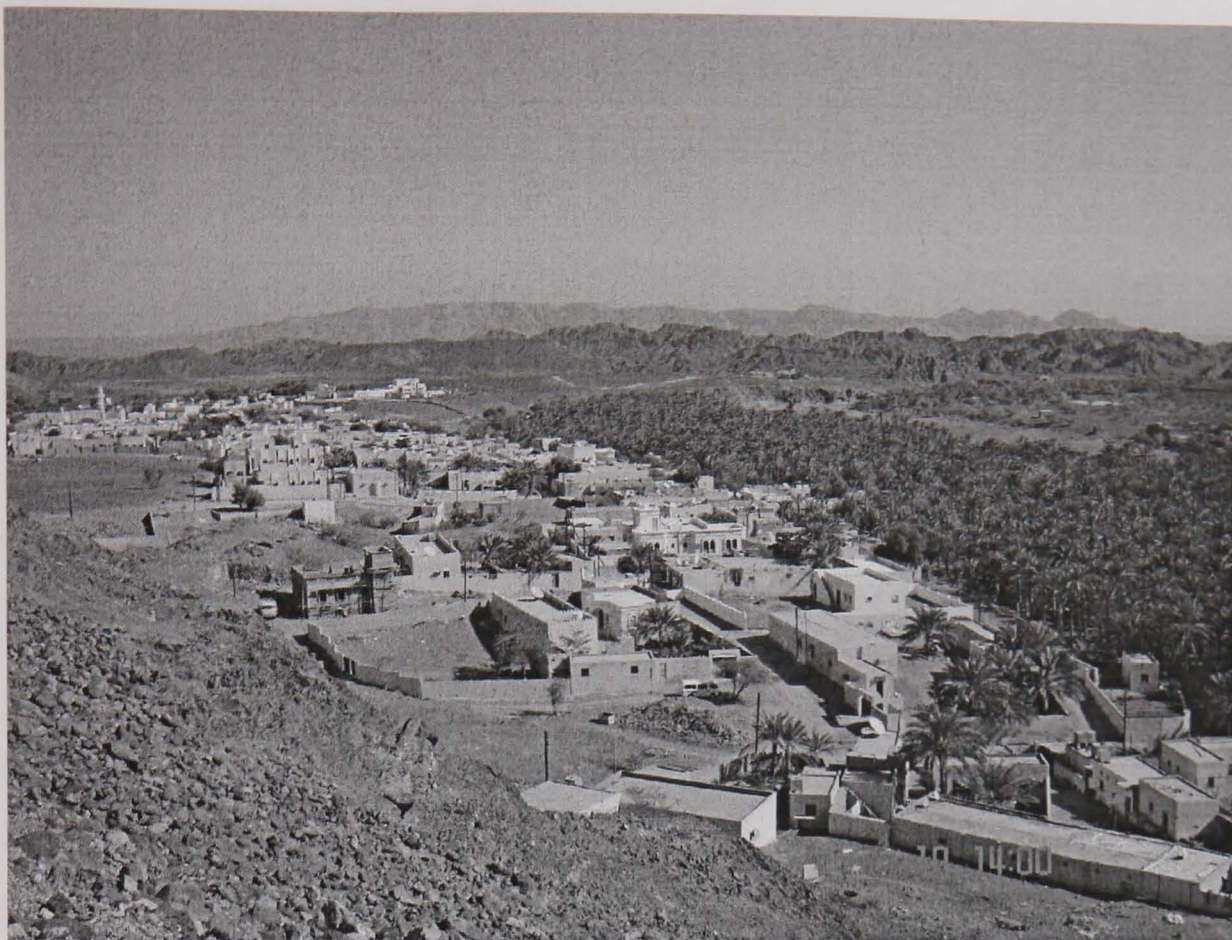


Plate 273 General view of al-Qaryatain Village site CS.4.1

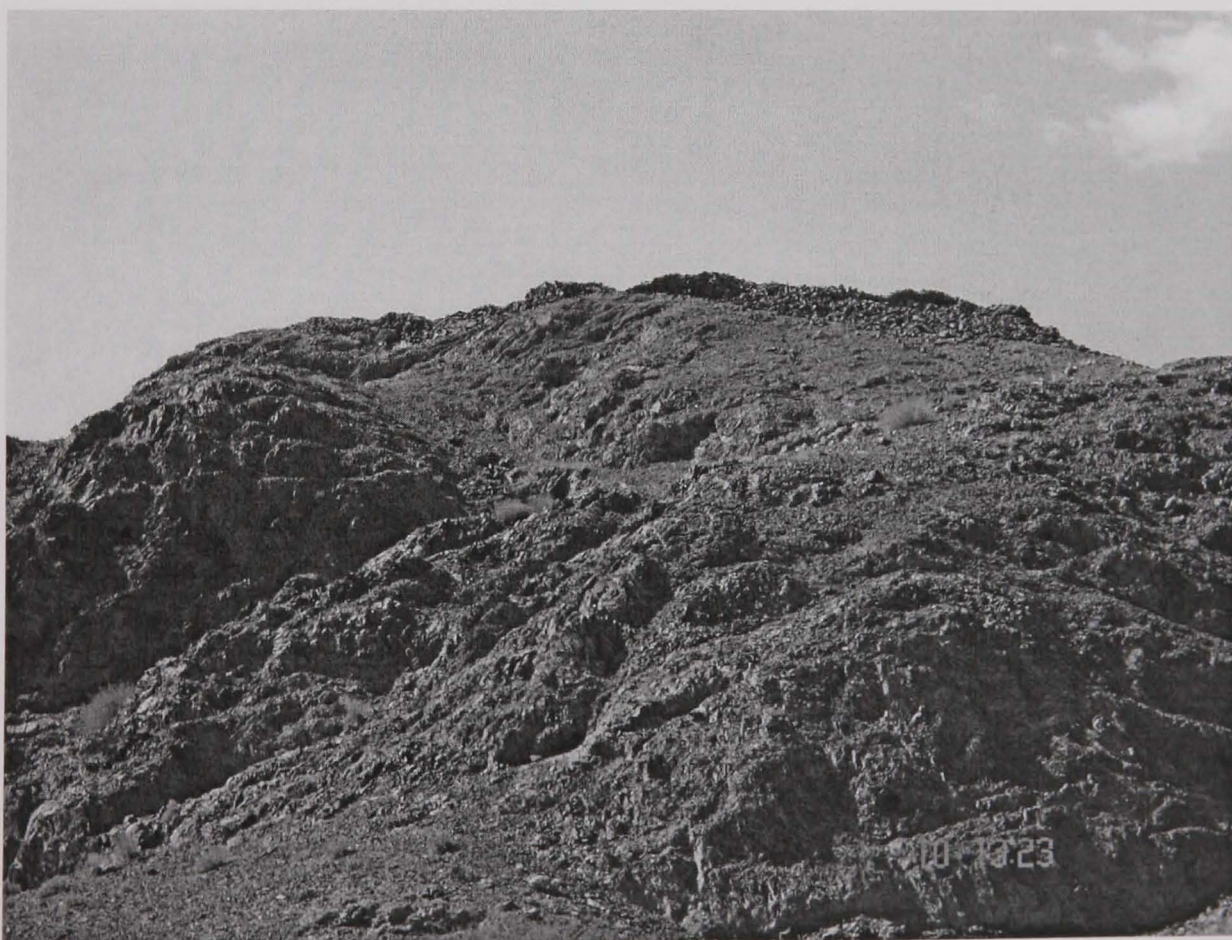


Plate 274 Remains of stone fortified structures on a rocky hill within al-Qaryatain Village site CS.4.1.2



Plate 275 Remains of stone fortified structures on a rocky hill within al-Qaryatain Village site
CS.4.1.2



Plate 276 Hafit cairn with white creamy soil at al-Qaryatain site CS.4.5



Plate 277 A possible circular pre-Islamic tomb at al-Qaryatain site CS.4.5



Plate 278 Horseshoe stone structure at al-Qaryatain site CS.4.6



Plate 279 Stone wall remains along the wadi bank at al-Qaryatain site CS.4.7



Plate 280 A pile of stones at al-Qaryatain site CS.4.7



Plate 281 Stone circular structure at al-Qaryatain site CS.4.7



Plate 282 Large Hafit cairn with white creamy soil at al-Qaryatain site CS.4.9



Plate 283 Part of the burial chamber of the above large Hafit cairn with white creamy soil at al-Qaryatain site CS.4.9



Plate 284 Cairn built of rough white stones at al-Qaryatain site CS.4.16



Plate 285 Cairn with white creamy soil at al-Qaryatain site CS.4.17



Plate 286 General view of the date palm groves along the wadi bank at al-Khashbah Village CS.5



Plate 287 General view of the date palm groves and modern houses at al-Khashbah Village CS.5



Plate 288 Badly disturbed cairn on a gravel hill north al-Khashbah Village, site CS.5.6



Plate 289 Umm an-Nar tomb field at al-Khashbah, site CS.5.9



Plate 290 Islamic tombs within the Umm an-Nar tomb field at al-Khashbah, site CS.5.9



Plate 291 Green shiny stones from CS.5.10, Tomb 2 (W.D.18) & Tomb 4 (W.D.20)



Plate 292 Hafit cairn at al-Khashbah Site CS.5.11



Plate 293 Hafit cairn at al-Khashbah Site CS.5.12



Plate 294 Hafit cairns at al-Khashbah Site CS.5.14



Plate 295 A possible pre-Islamic tomb at al-Khashbah Site CS.5.16



Plate 296 Stone structure of unknown function at al-Khashbah Site CS.5.16



Plate 297 General view of some Beehive tombs on a low gravel hill at al-Khashbah Site CS.5.19



Plate 298 Hafit cairn on the low gravel terrace (front) and Beehive tombs on a low gravel hill (back) at al-Khashbah Site CS.5.19



Plate 299 Cairns either Hafit or badly disturbed Beehive tombs at al-Khashbah Site CS.5.19

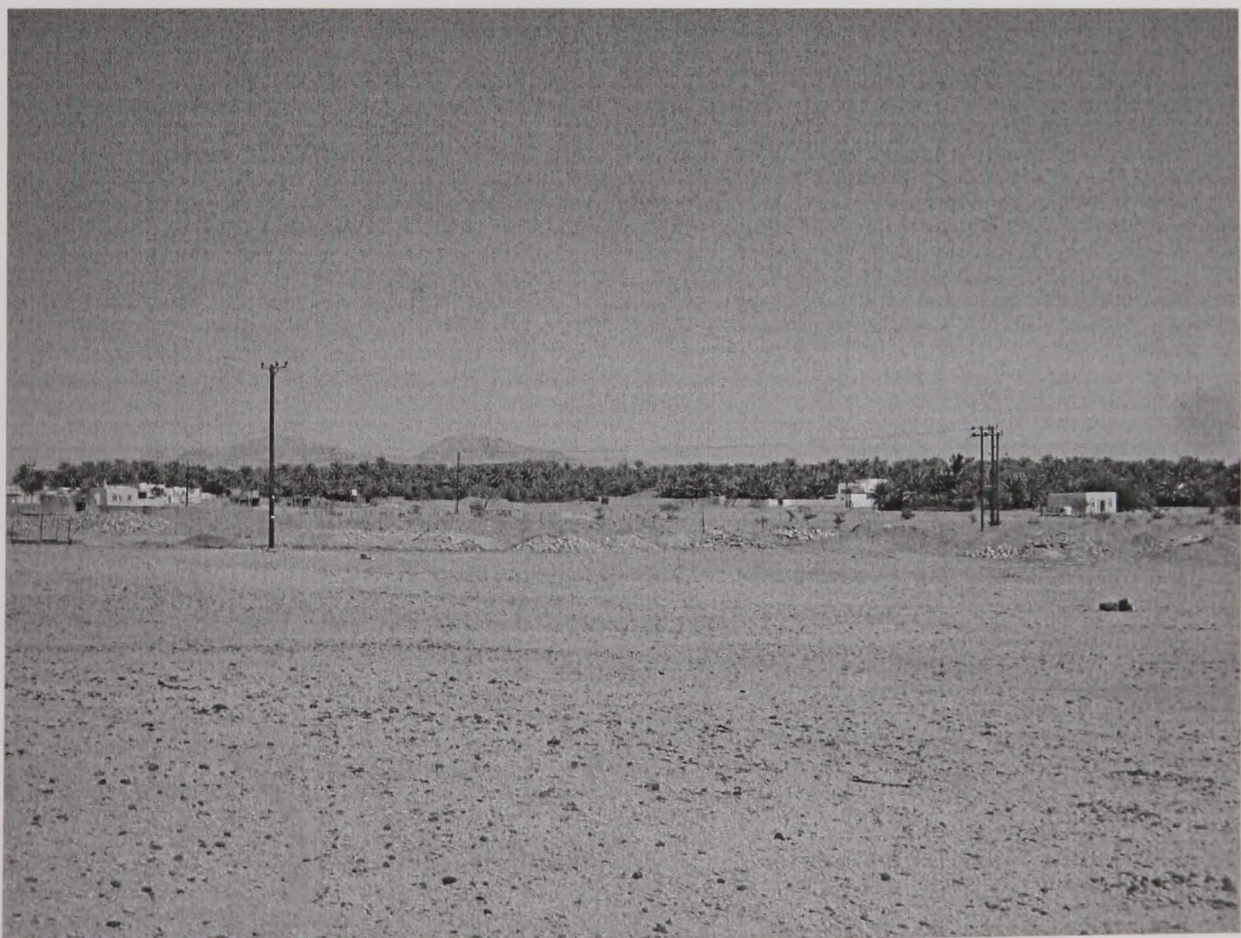


Plate 300 General view of Barzaman village and its date palm groves, CS.7

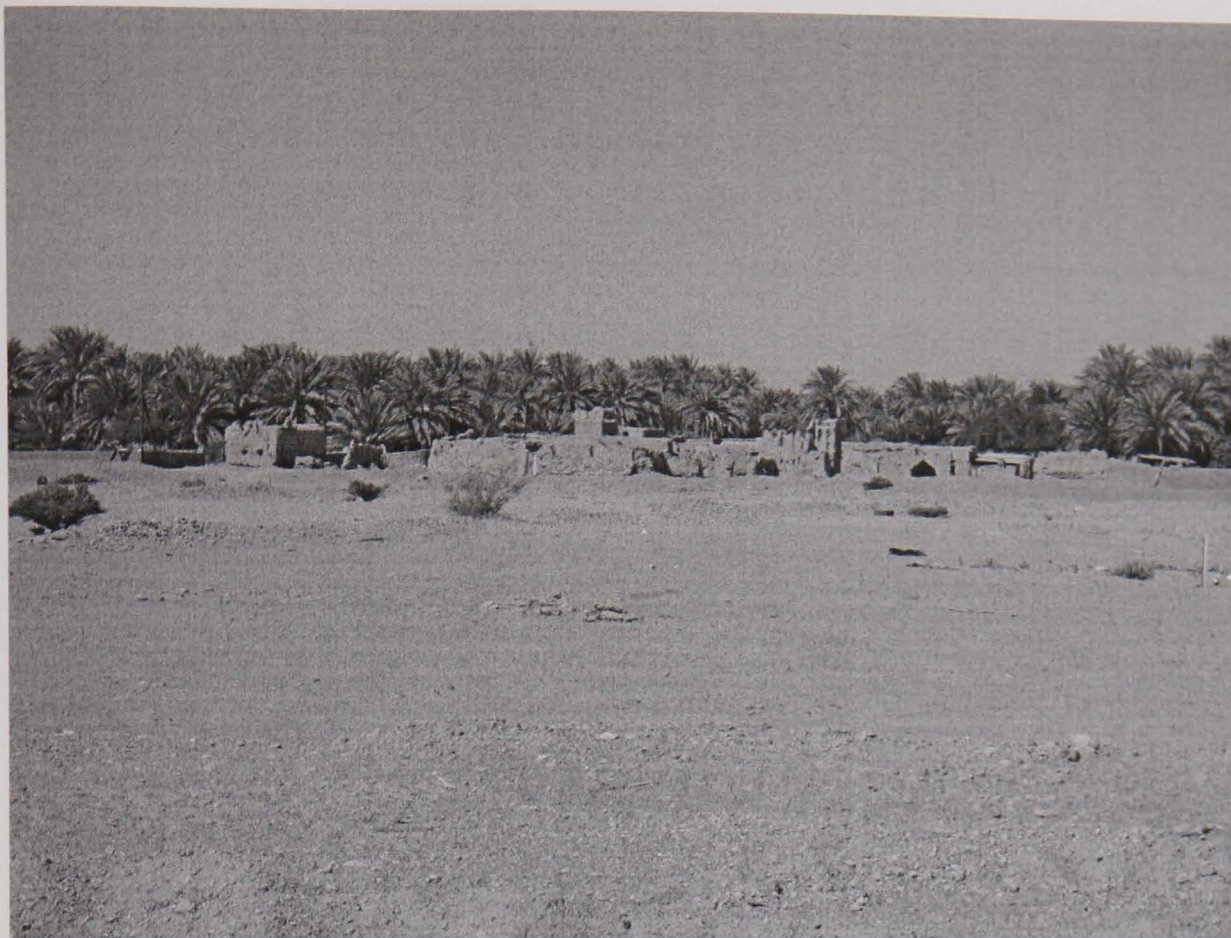


Plate 301 Old mudbrick buildings within the date palm groves at Barzaman village, CS.7.1



Plate 302 Remains of agricultural works at Barzaman village, CS.7.1



Plate 303 *Barasti* structures at Barzaman village, CS.7.1



Plate 304 Remains of possibly stone structures at Barzaman Site CS.7.4



Plate 305 Hafit cairn with white creamy soil at Barzaman Site CS.7.4



Plate 306 Islamic tombs at Barzaman Site CS.7.4



Plate 307 General view shows ar-Rawdhah village and its data palm groves, CS.9



Plate 308 Badly disturbed Hafit cairn at ar-Rawdhah village, CS.9.3



Plate 309 Pre-Islamic tomb at ar-Rawdhah village, CS.9.3



Plate 310 Remains of mudbrick mosque at ar-Rawdhah site CS.9.5

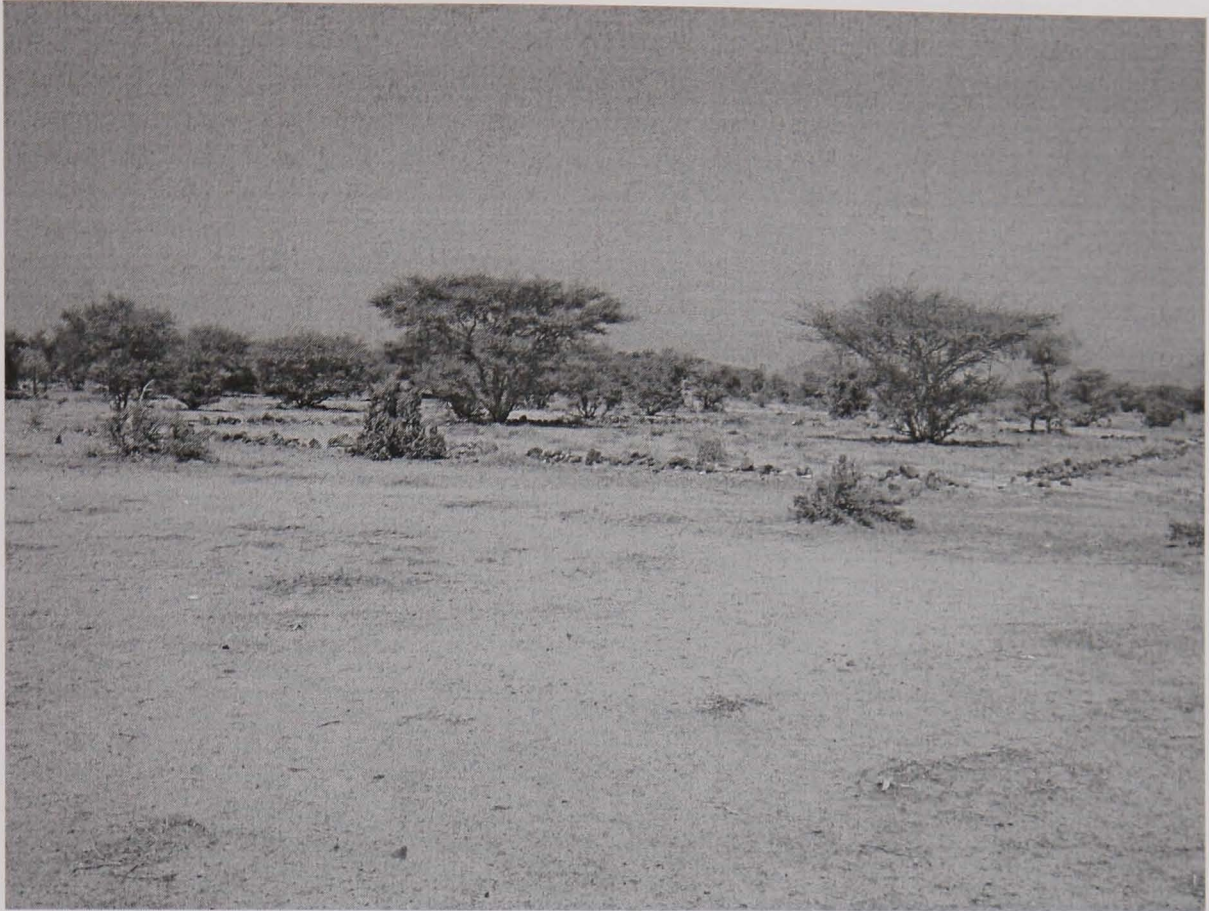


Plate 311 Remains of old agricultural fields at ar-Rawdhah site CS.9.5

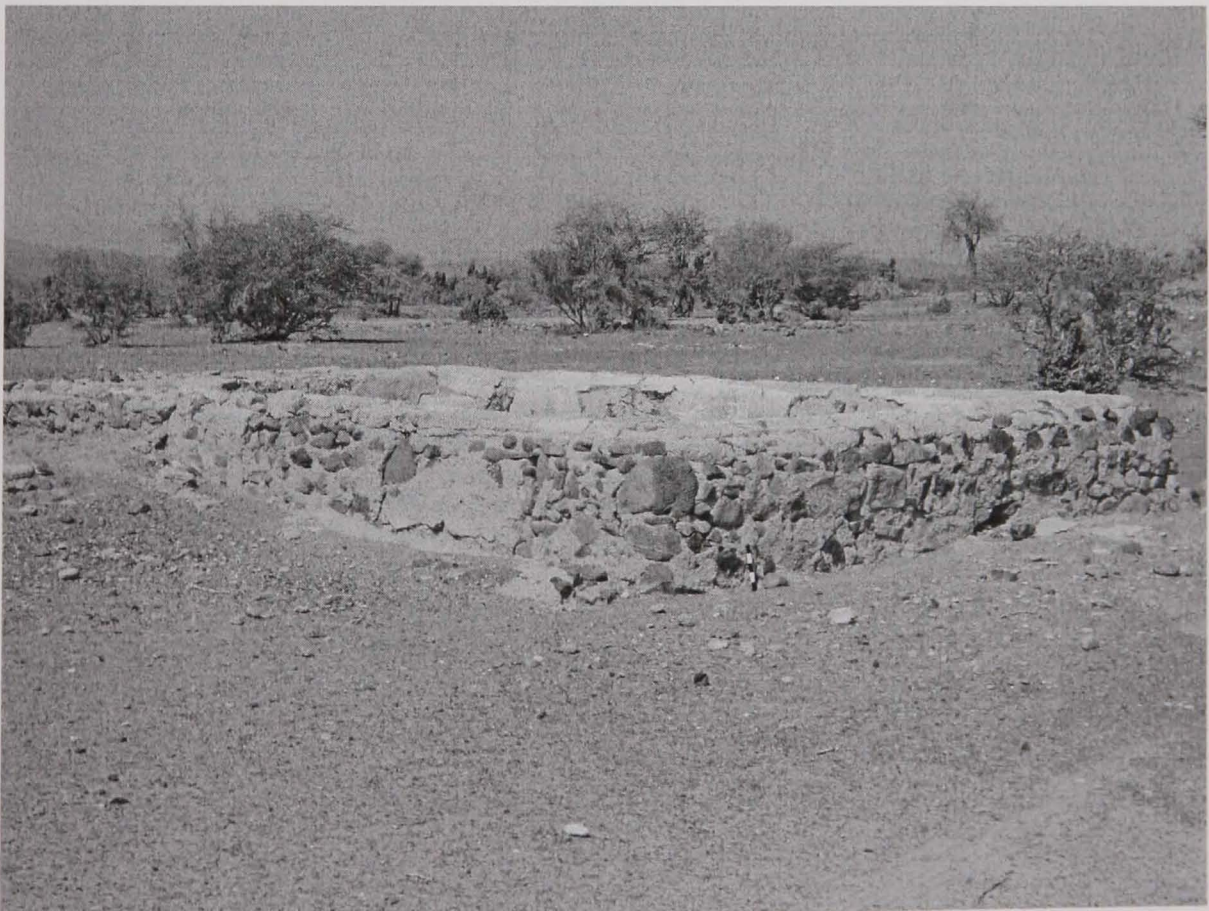


Plate 312 Rectangular basin within agricultural fields at ar-Rawdhah site CS.9.5



Plate 313 Clearance mounds from the fields at ar-Rawdhah site CS.9.5



Plate 314 Remains of a well or water hole (Thuqbah) at ar-Rawdhah site CS.9.6



Plate 315 Rock shelter at ar-Rawdhah site CS.9.12



Plate 316 Stone-mudbrick wall remains at the foot of a rocky hill at ar-Rawdhah site CS.9.12



Plate 317 Stone-mudbrick remains of possible structures at the foot of a rocky hill at ar-Rawdhah site CS.9.12



Plate 318 Pre-Islamic tomb from the tomb field at Rubkah site CS.2.1



Plate 319 Pre-Islamic tomb from the tomb field at Rubkah site CS.2.1



Plate 320 Pre-Islamic tomb or cairn from the tomb field at Rubkah site CS.2.1



Plate 321 A pile of stone of possibly pre-Islamic tomb at Siyudian site CS.2.6



Plate 322 Cut-section at Siyudian site CS.2.7



Plate 323 A pile of stone of possibly pre-Islamic tomb at Khuwisi site CS.2.10



Plate 324 Islamic tombs at Khuwisi site CS.2.14



Plate 325 Islamic tombs at Khuwisi site CS.2.14

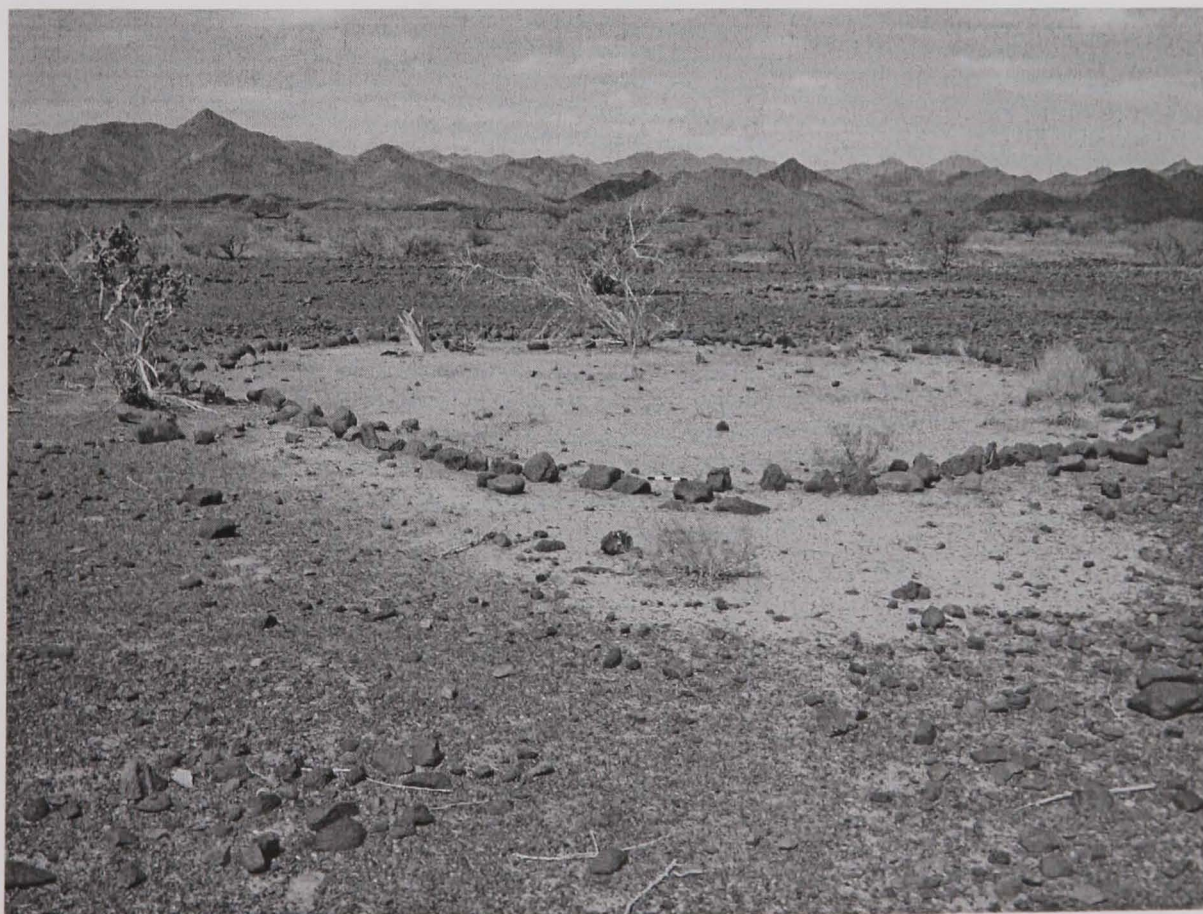


Plate 326 Large cleared stone circle at Khuwisi site CS.2.14



Plate 327 A possible Hafit cairn at Khuwisi site CS.2.15



Plate 328 Large stone circle enclosure at Khuwisi site CS.2.15



Plate 329 A possible stone tower at Jabel Qard site CS.2.22



Plate 330 Hafit cairn at Rubkah site CS.2.24



Plate 331 Foundations of square stone structure at Rubkah site CS.2.24



Plate 332 Horseshoe structure at Khuwisi site CS.2.25



Plate 333 Plied stones of possibly pre-Islamic tombs at Jabel Qard site CS.2.28



Plate 334 Rectangular and oval stone structures at Jabel Qard site CS.2.28



Plate 335 Stone tower at Rubkah site CS.2.34



Plate 336 Stone wall built along the edge of a rocky hill and surrounds a stone tower at Rubkah site CS.2.34



Plate 337 Remains of fortified site built on a high rocky hill at Mahleya site CS.2.40



Plate 338 Remains of stone structures from the fortified site at Mahleya site CS.2.40



Plate 339 Hafit cairn at Mahleya site CS.2.41

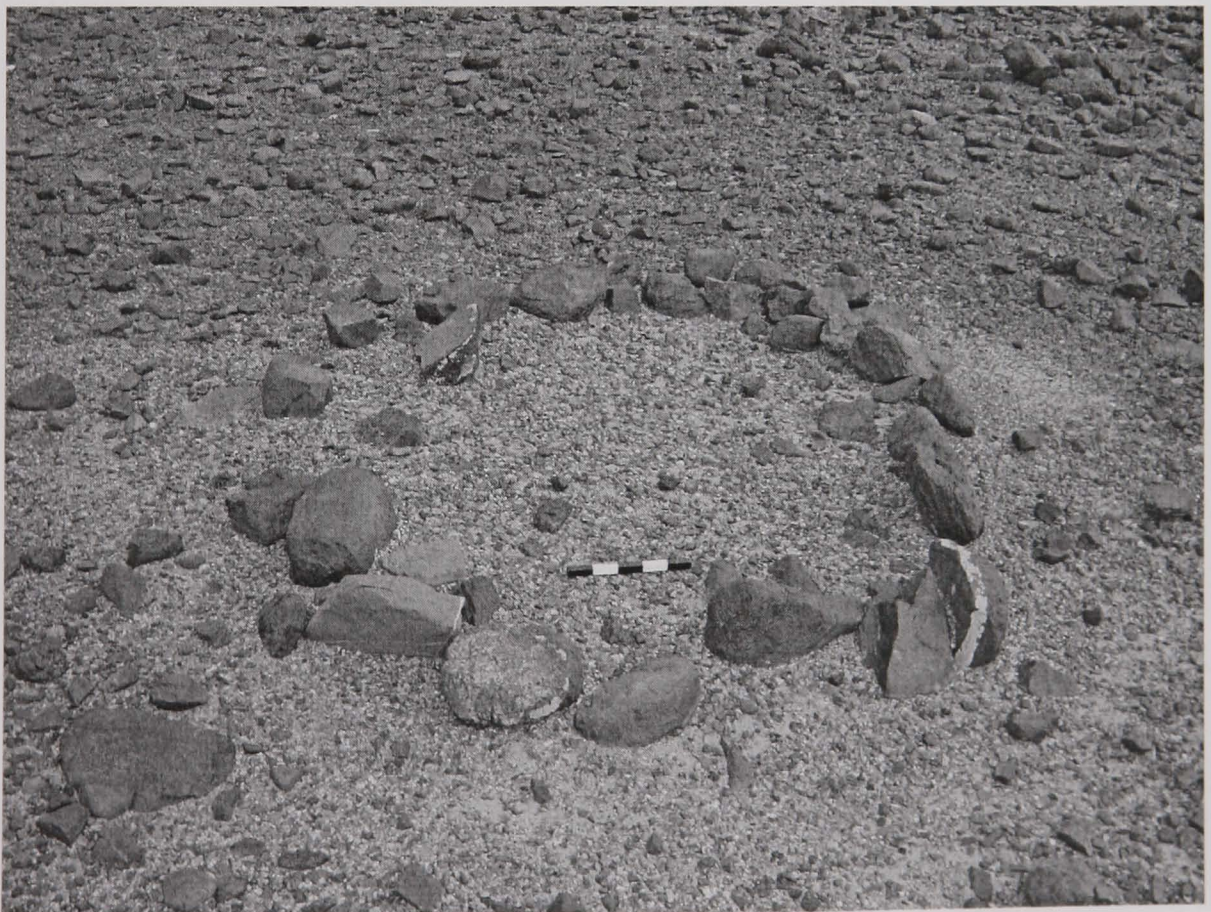


Plate 340 Circular stone structure at Mahleya site CS.2.41

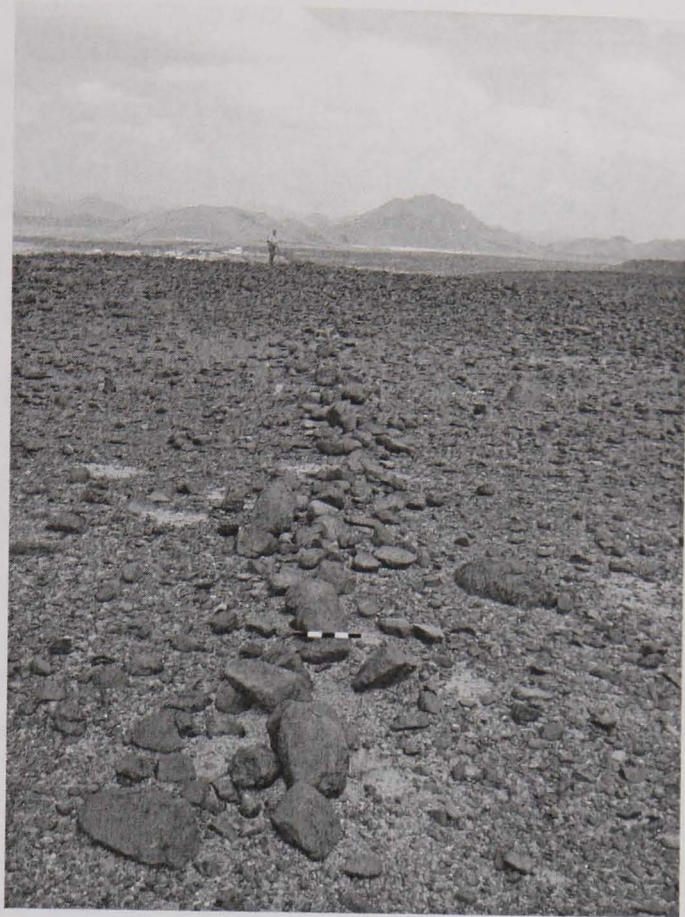


Plate 341 Stone alignment at Mahleya site CS.2.41



Plate 342 Semi-rectangular stone alignment with corner small possible animal house at Mahleya site CS.2.41



Plate 343 A possibly collapsed tombs or structures that look like honeycomb structure at Mahleya site CS.2.42



Plate 344 Stone structures at Al-Ghoryeen site CS.2.44



Plate 345 Stone structures with possible chicken house (black arrow) at Al-Ghoryeen site CS.2.49



Plate 346 Fragment of chlorite grinding stone from Mahleya site CS.2.51.1

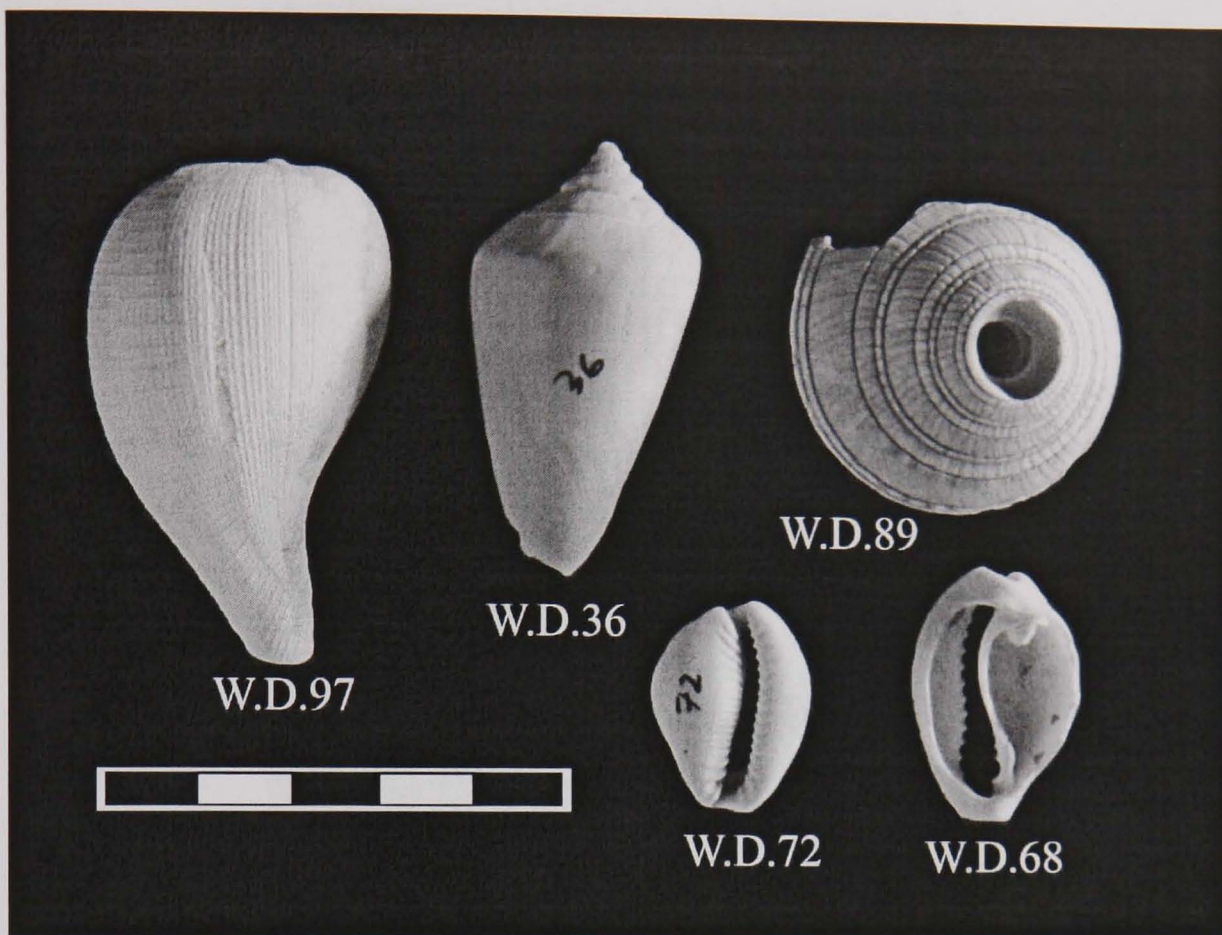


Plate 347 Shells from different sites: Mahleya CS.2.51.7, Tomb 2 (W.D.89); CS.5.13, Tomb 2 (W.D.97); CS.2.63 (W.D.36); CS.5.14, Tomb 8 (W.D.72) and CS.2.67.14 (W.D.68)

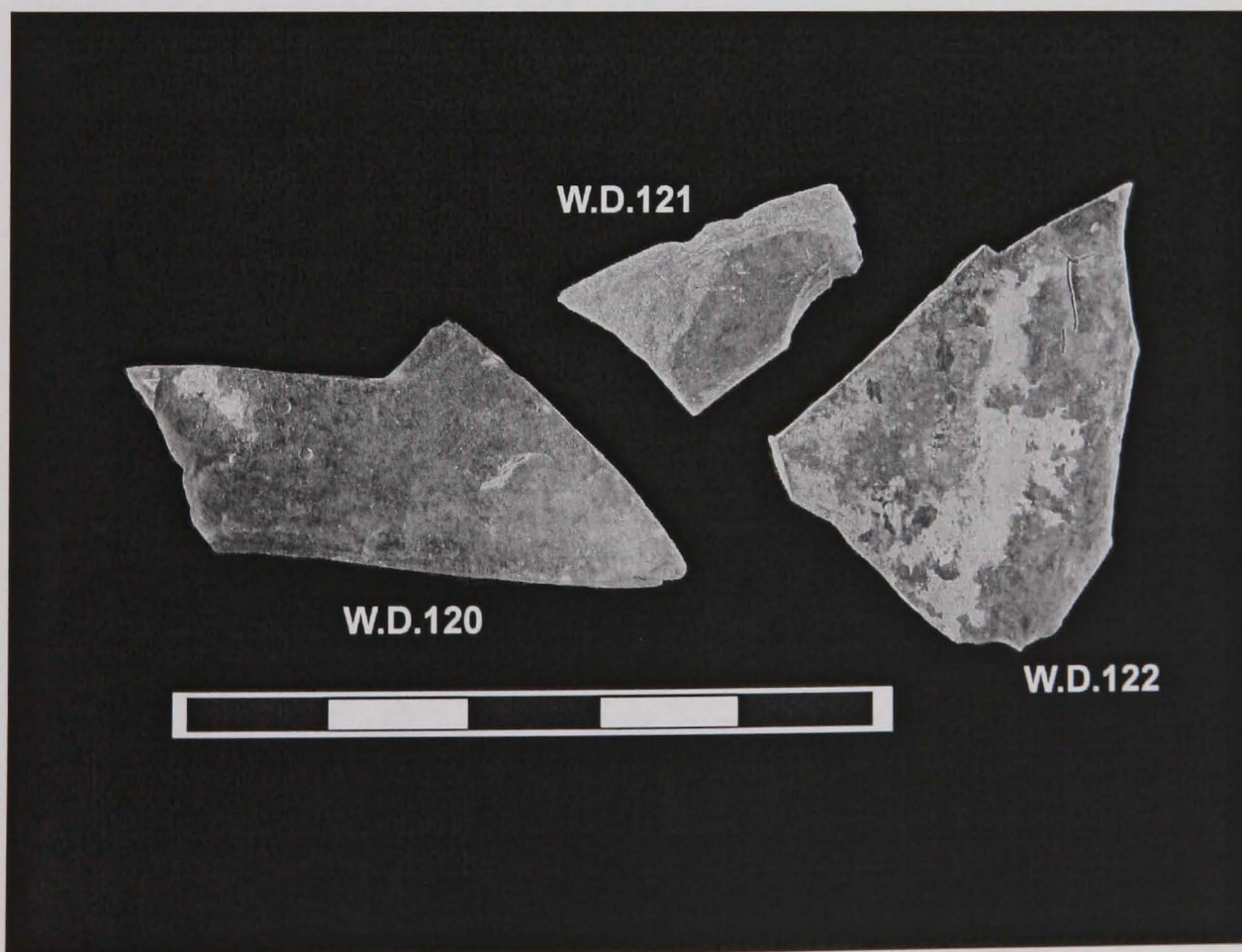


Plate 348 Three fragments of green glass from Mahleya site CS.2.51.8, Tomb 4

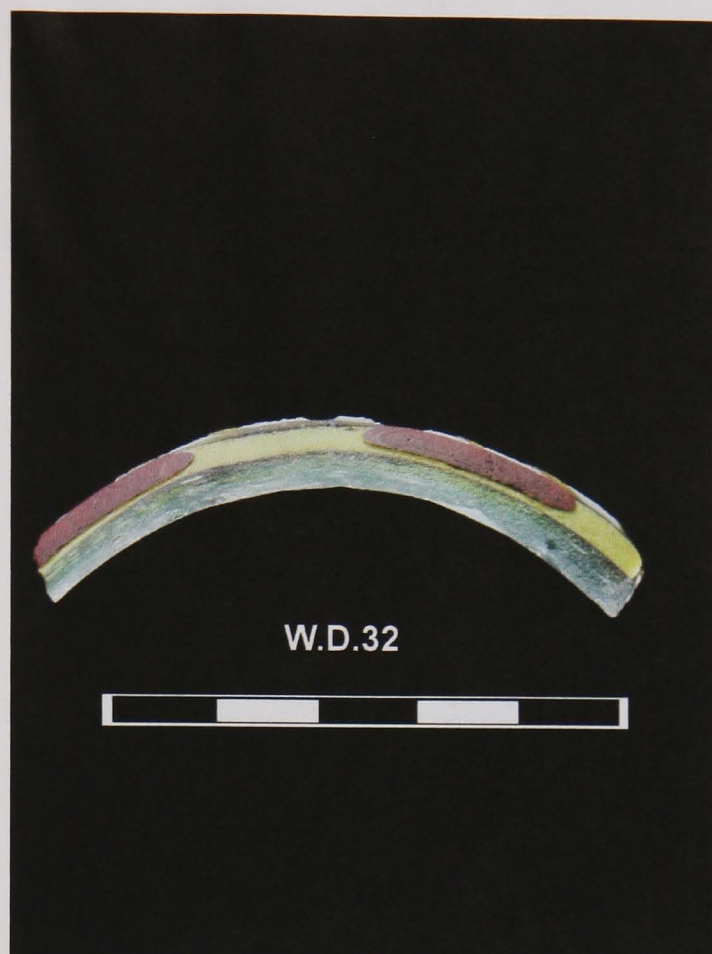


Plate 349 Fragment of green glass bracelet from Mahleya site CS.2.51.8, Tomb 6



Plate 350 Fragment of green glass bracelet from Mahleya site CS.2.51.8, Tomb 6

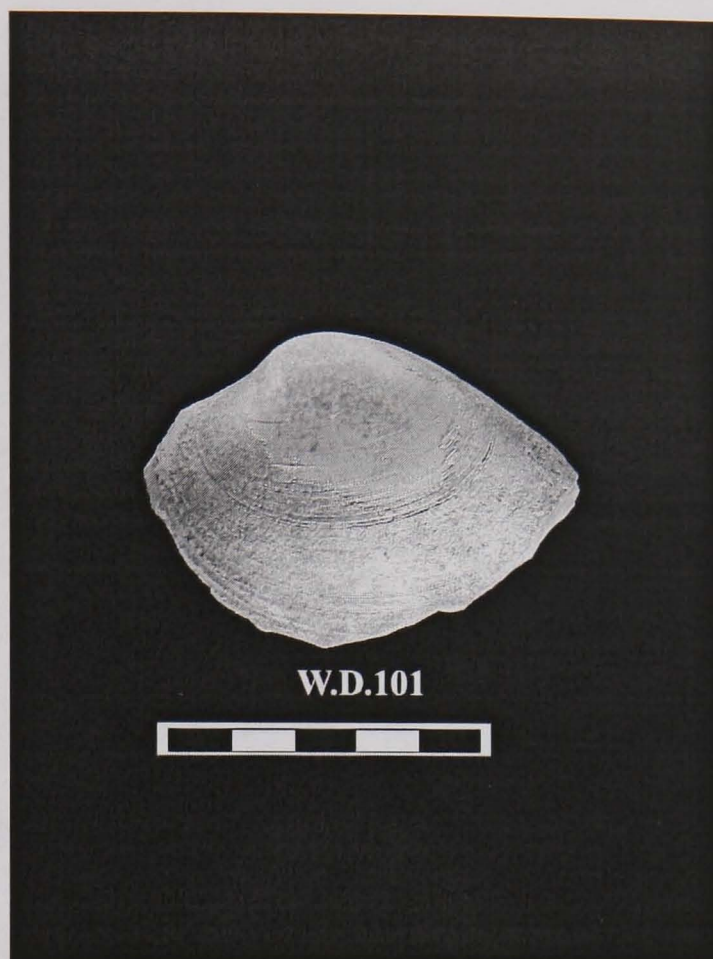


Plate 351 Shell from Mahleya site CS.2.51.8, Tomb 7

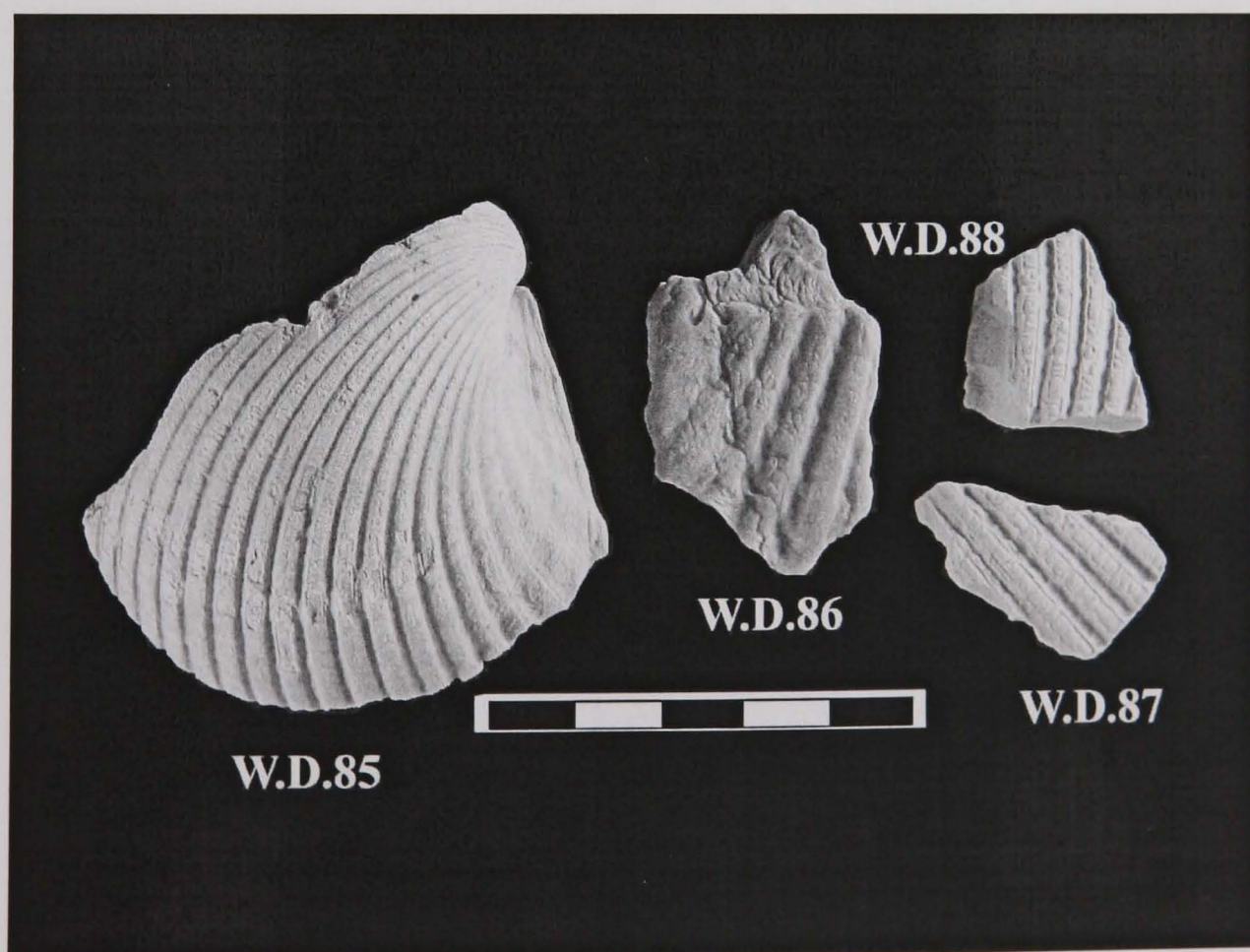


Plate 352 Fragments of shells from Al-Ghoryeen CS.2.52.3



Plate 353 Stone oval structure with a semi-circular entrance like 'porch' at Mahleya, site CS.2.54

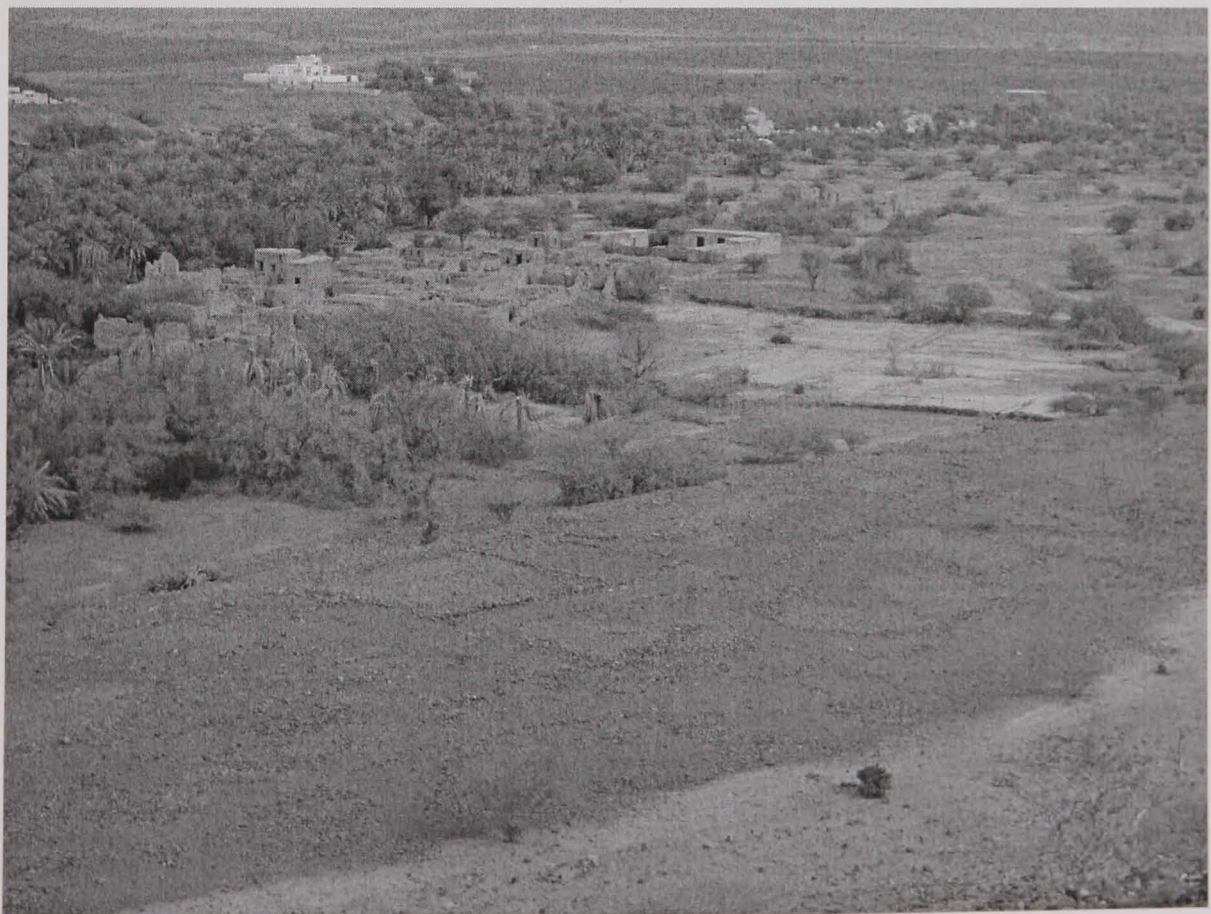


Plate 354 General view of site Mahleya CS.2.55 and its archeological features



Plate 355 Islamic tombs at site Mahleya CS.2.55.1

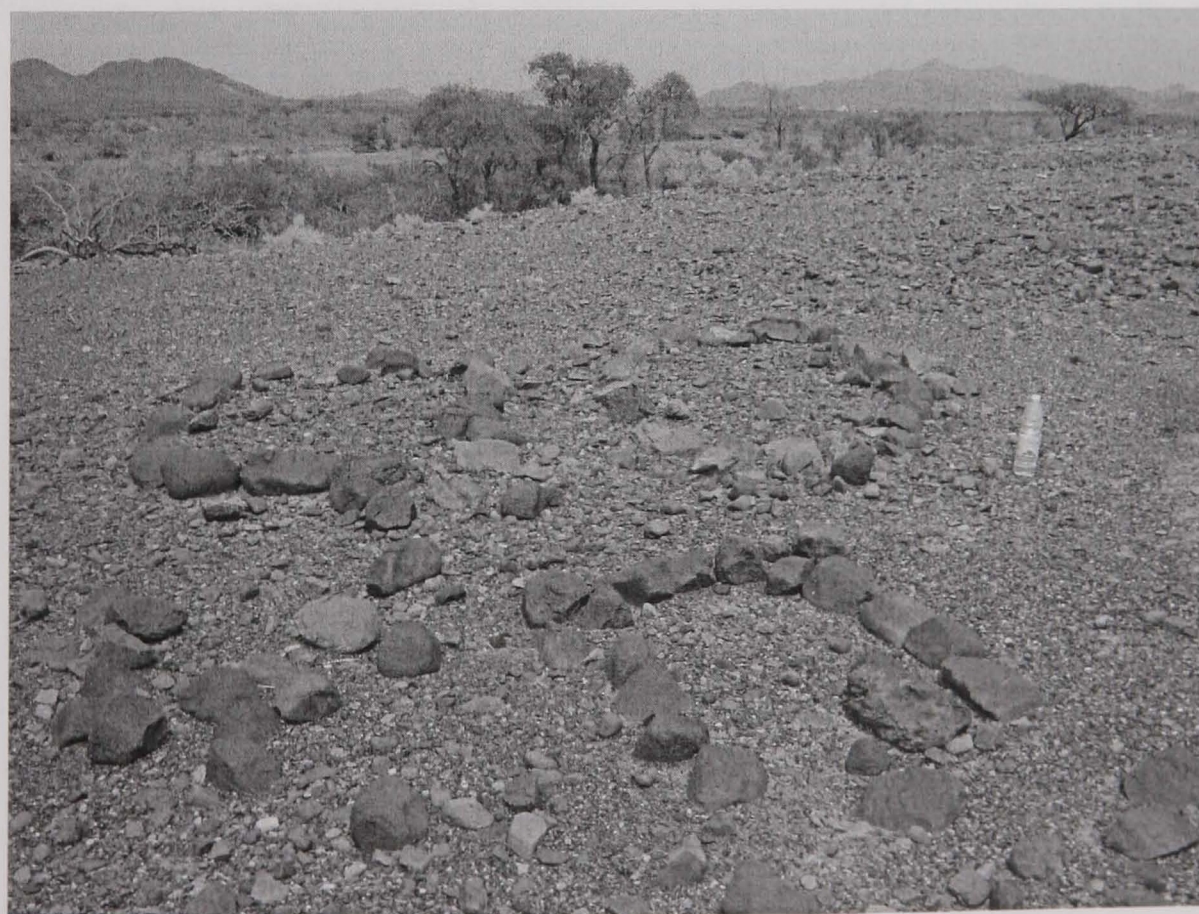


Plate 356 Possibly pre-Islamic tombs at site Mahleya CS.2.55.1



Plate 357 A possibly pre-Islamic tomb at site Mahleya CS.2.55.1



Plate 358 A possibly pre-Islamic tomb at site Mahleya CS.2.55.1



Plate 359 Rectangular stone structure at site Mahleya CS.2.55.1



Plate 360 Square structure at site Mahleya CS.2.55.1



Plate 361 General view of the old agriculture works and fields with stone structures at site Mahleya CS.2.55.2



Plate 362 Old agricultural works and fields at site Mahleya CS.2.55.2



Plate 363 Islamic cemetery at site Mahleya CS.2.55.3



Plate 364 Mahleya old quarter at site Mahleya CS.2.55.4



Plate 365 One of the houses at Mahleya old quarter in site CS.2.55.4



Plate 366 Hafit cairn with two double stone walls at Mahleya site CS.2.56



Plate 367 Stone wall on an edge of black rocky hill and its slope which is possibly part of fortification at Mahleya site CS.2.58



Plate 368 Hafit cairn or possibly collapsed beehive tombs at Al-Ghoryeen site CS.2.59



Plate 369 a Burial chamber of possibly Hafit or collapsed beehive tomb at Al-Ghoryeen site CS.2.59



Plate 370 Stone structures at Al-Ghoryeen site CS.2.60

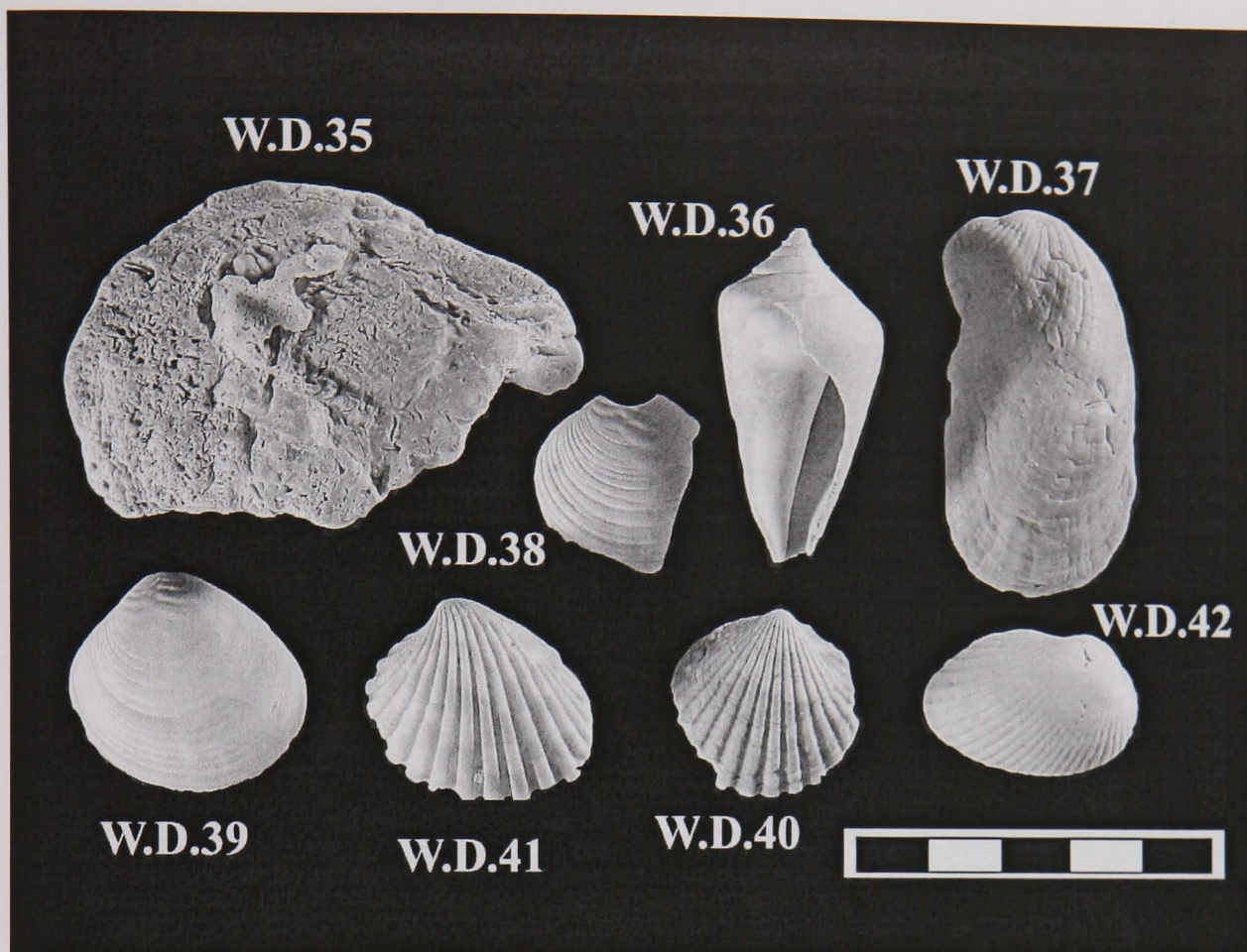


Plate 371 Shells from Al-Ghoryeen site CS.2.63



Plate 372 Stone structures from Al-Ghoryeen site CS.2.64



Plate 373 Stone circle structure from Al-Ghoryeen site CS.2.64



Plate 374 Hafit cairn at Al-Ghoryeen site CS.2.64



Plate 375 Hafit cairn with white creamy soil at Al-Ghoryeen site CS.2.65



Plate 376 *Mihrab* on one course stone alignment of open prayer area at Al-Ghoryeen site CS.2.65



Plate 377 A group of small piles of stones at Khadra Bani Dafa'a site CS.2.67

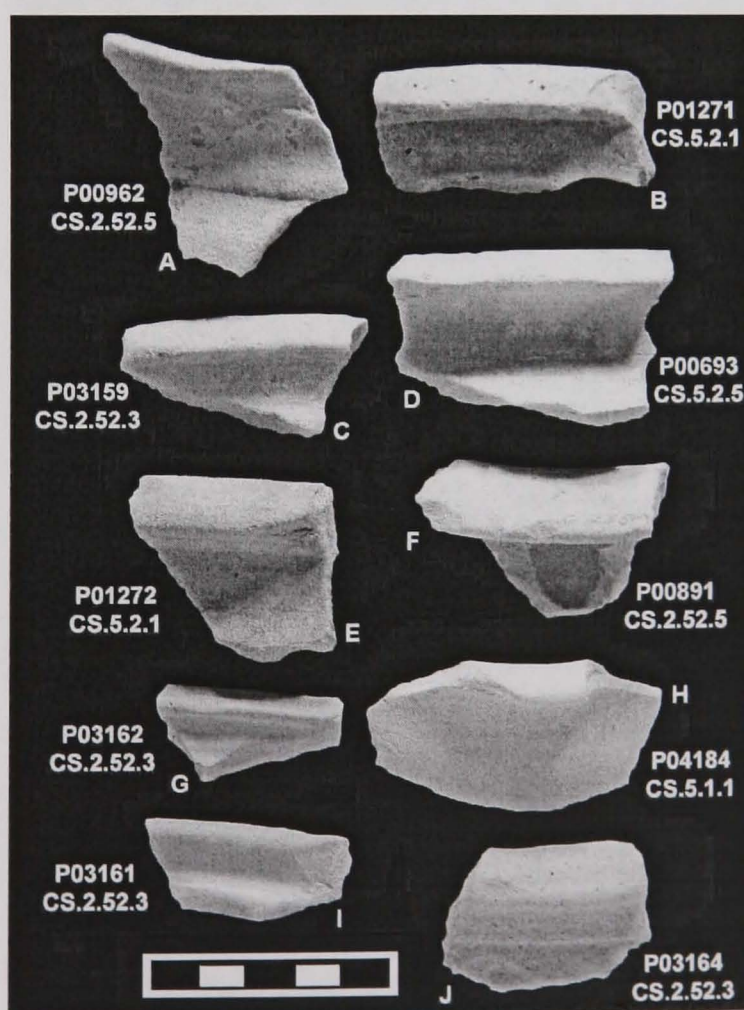


Plate 378 Umm an-Nar vessel rims: UMF (A), UMFRPW (B, D-F, H) & UMFBPW (C, G, I)

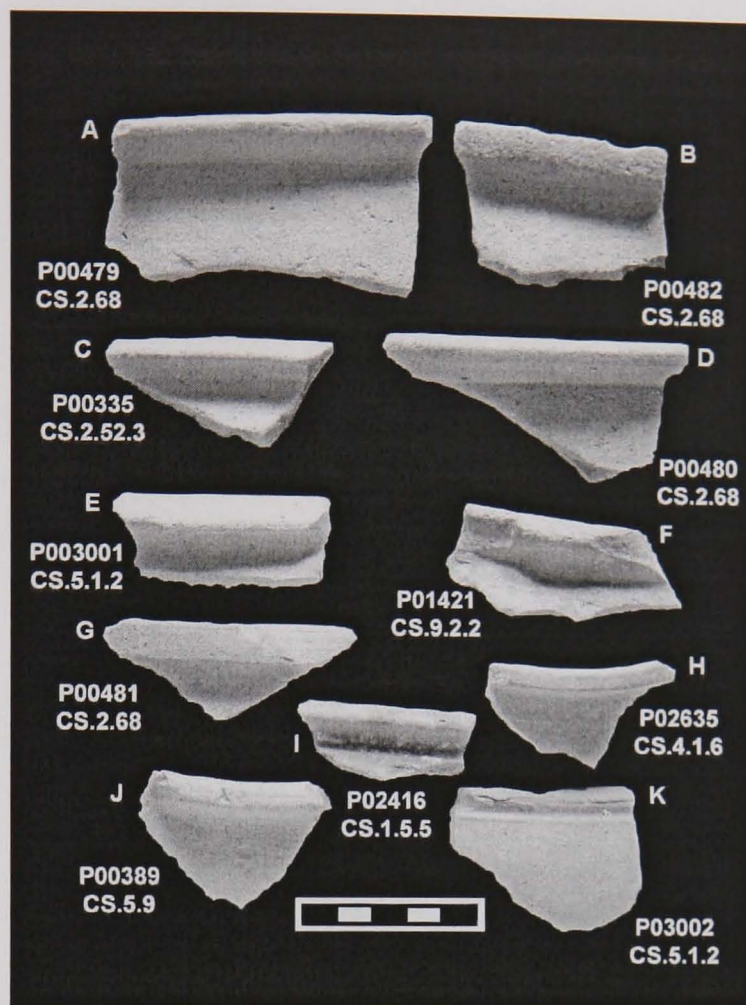


Plate 379 Umm an-Nar vessel rims: UMRYW (A-K)

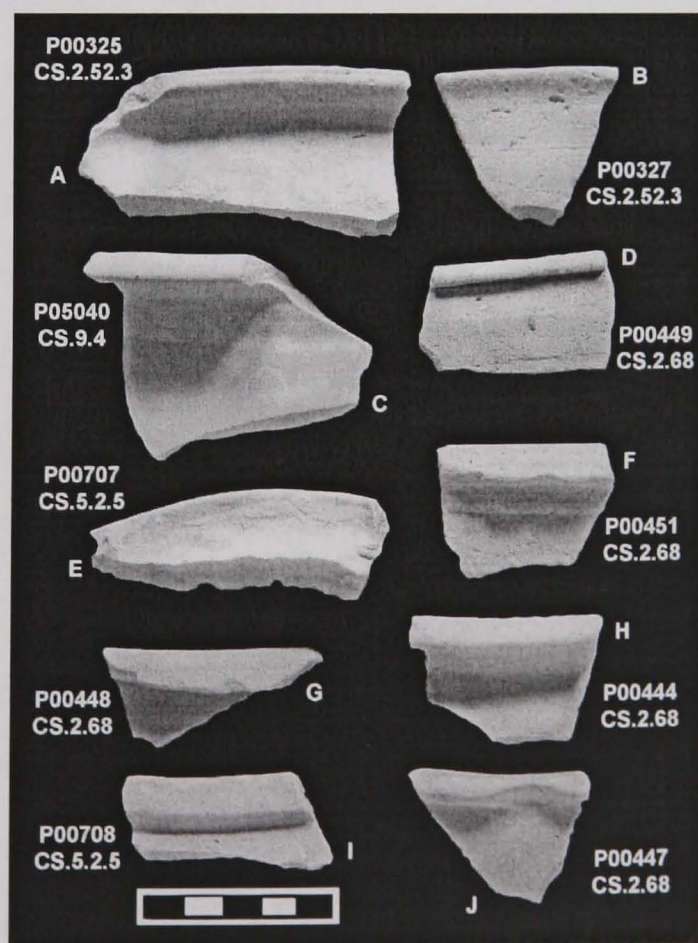


Plate 380 Umm an-Nar vessel rims: UMFBPW (A-J)

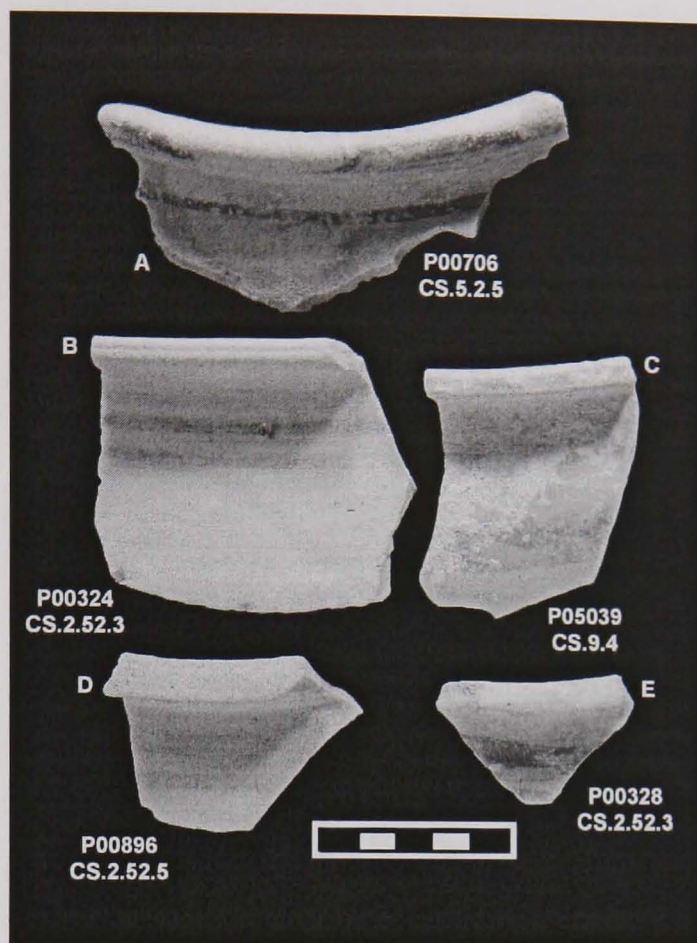


Plate 381 Umm an-Nar vessel rims: UMFBPW (A-E)

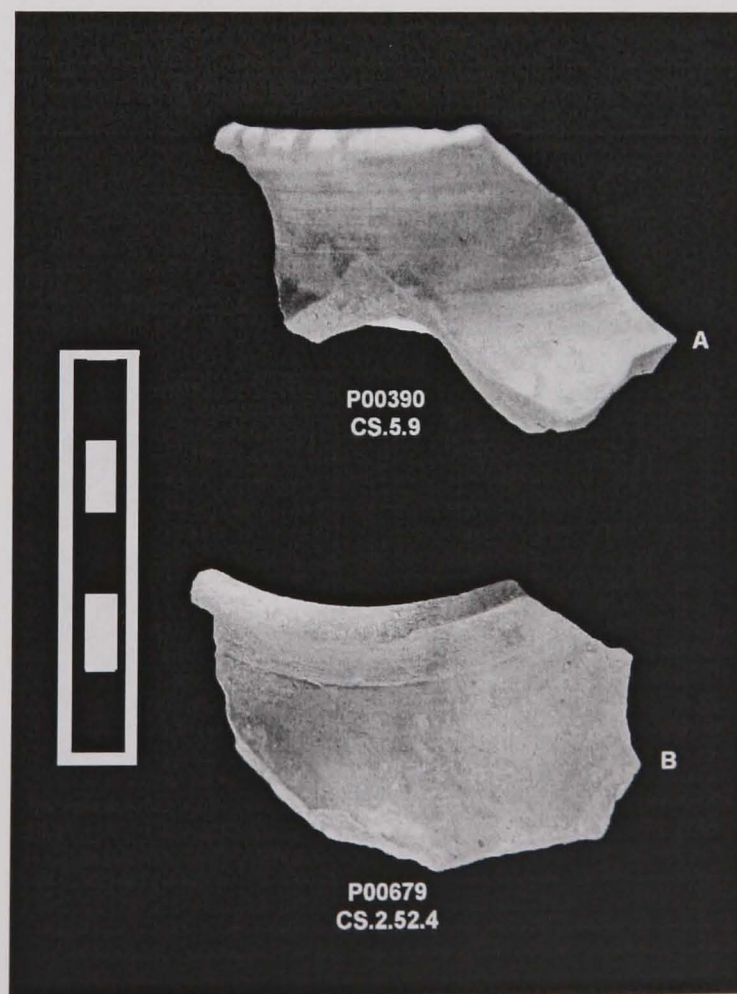


Plate 382 Umm an-Nar vessel rims: UMPGW (A-B)

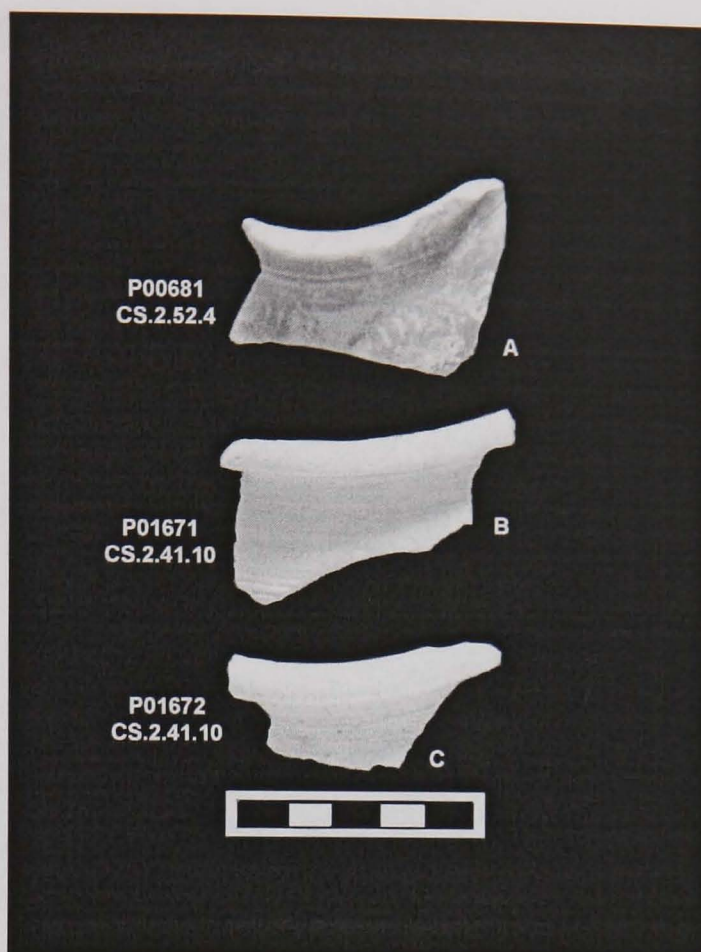


Plate 383 Umm an-Nar vessel rims: UMTGW (A) & UMVPBW (B-C)

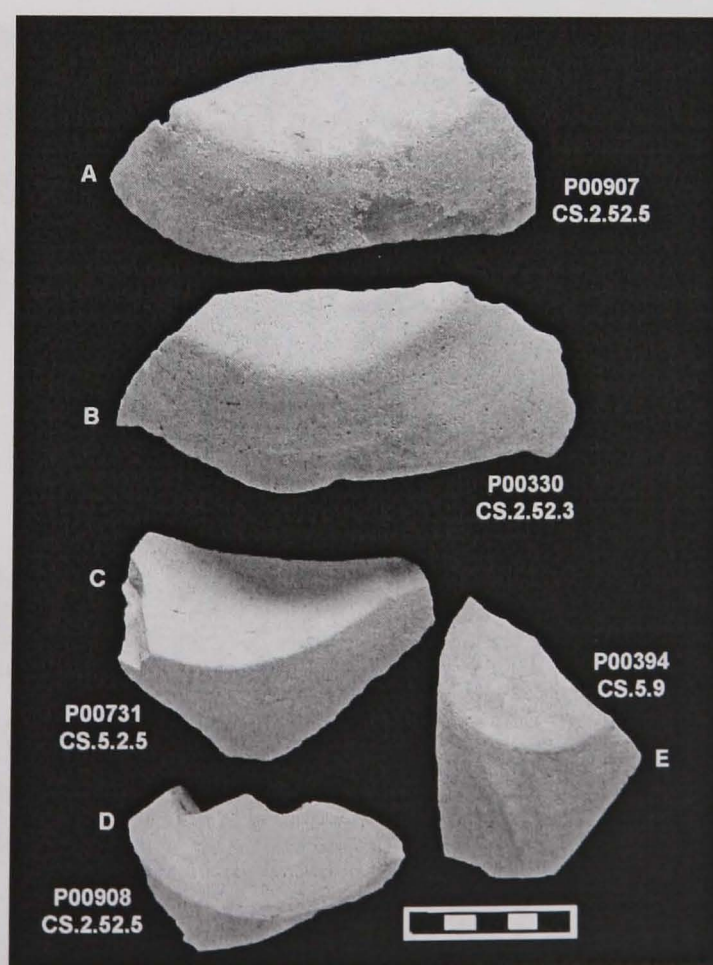


Plate 384 Umm an-Nar vessel bases: UMRYW (A-E)

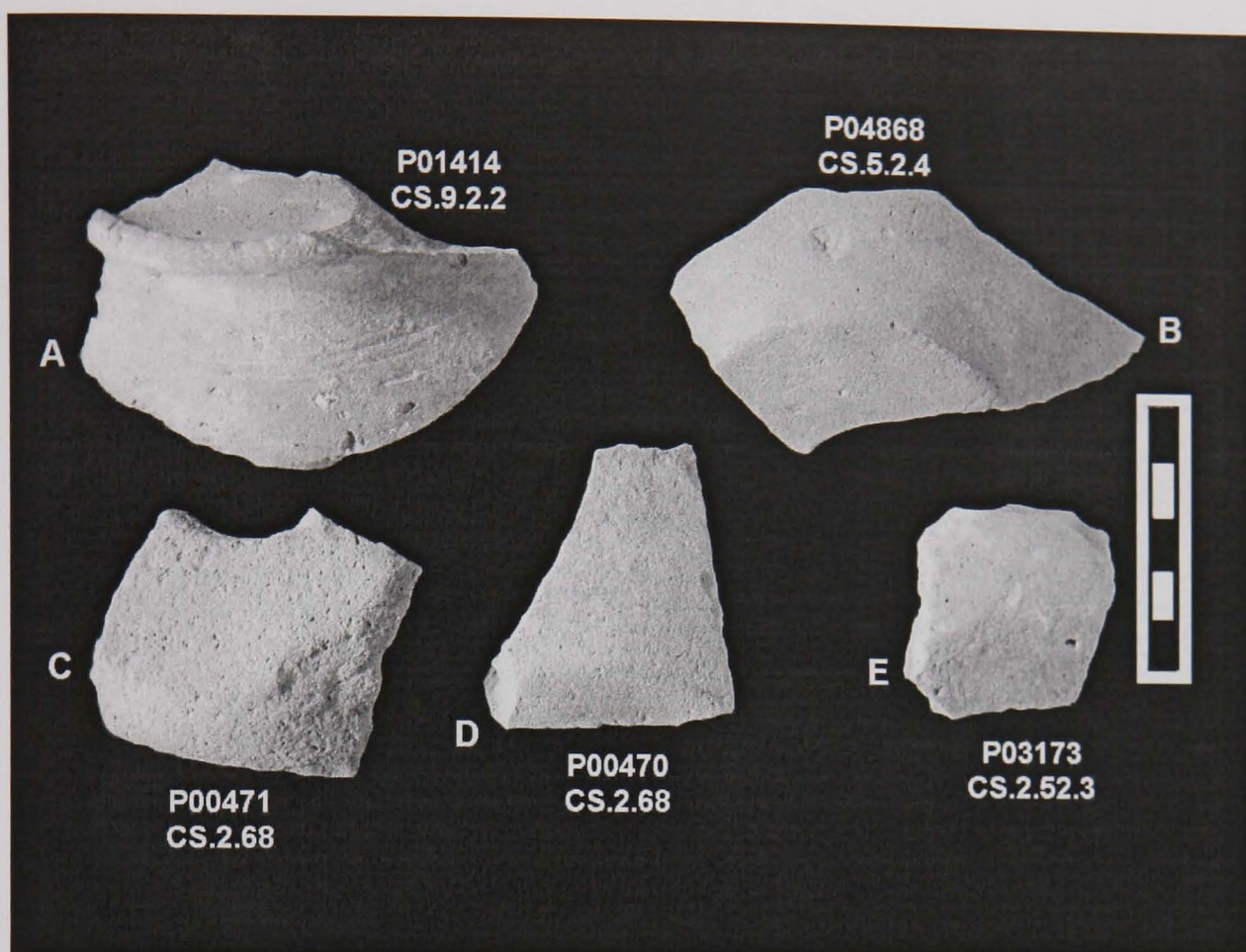


Plate 385 Umm an-Nar vessel bases: UMCGW (A-E)

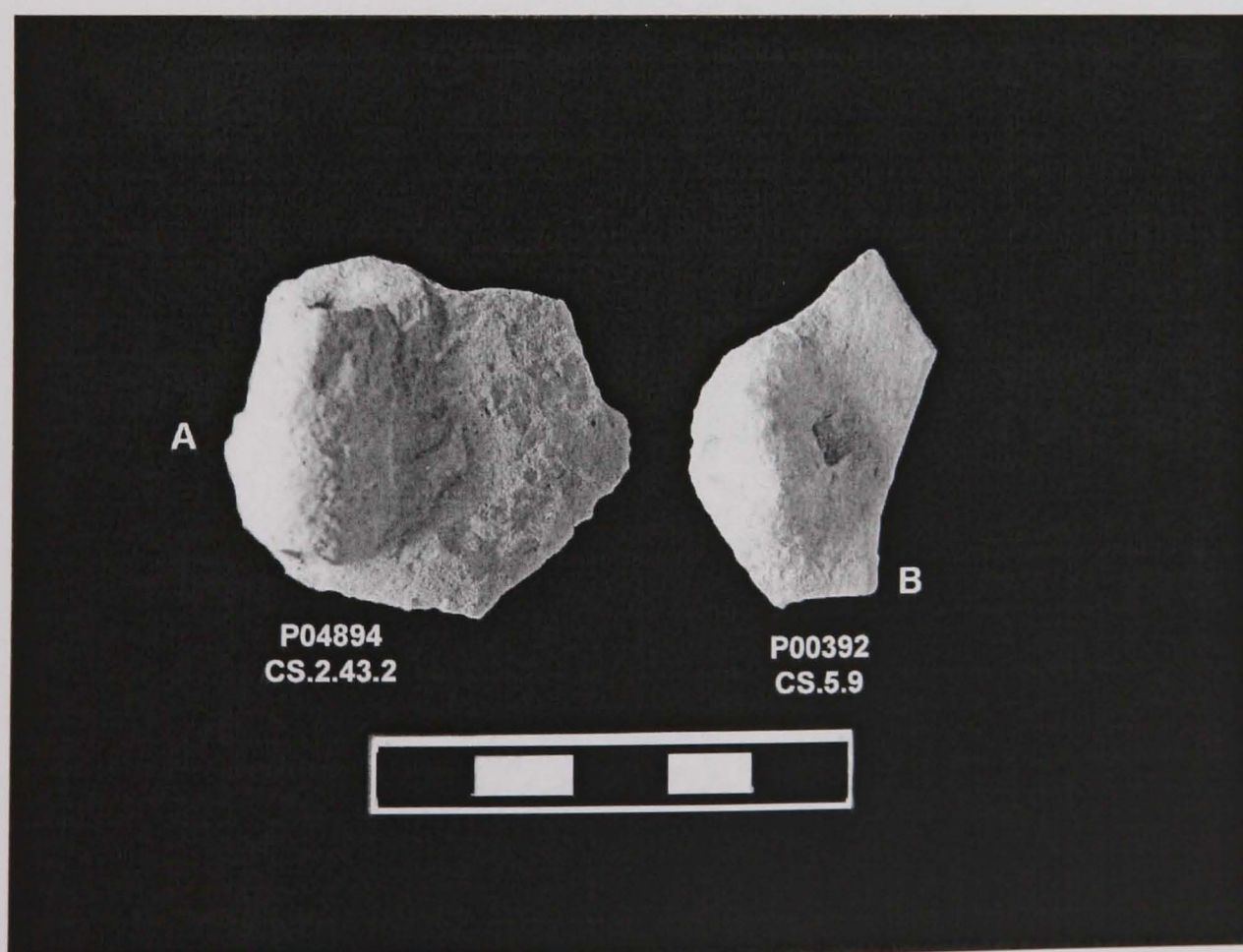


Plate 386 Umm an-Nar pierced lugs: UMTRFW (A-B)

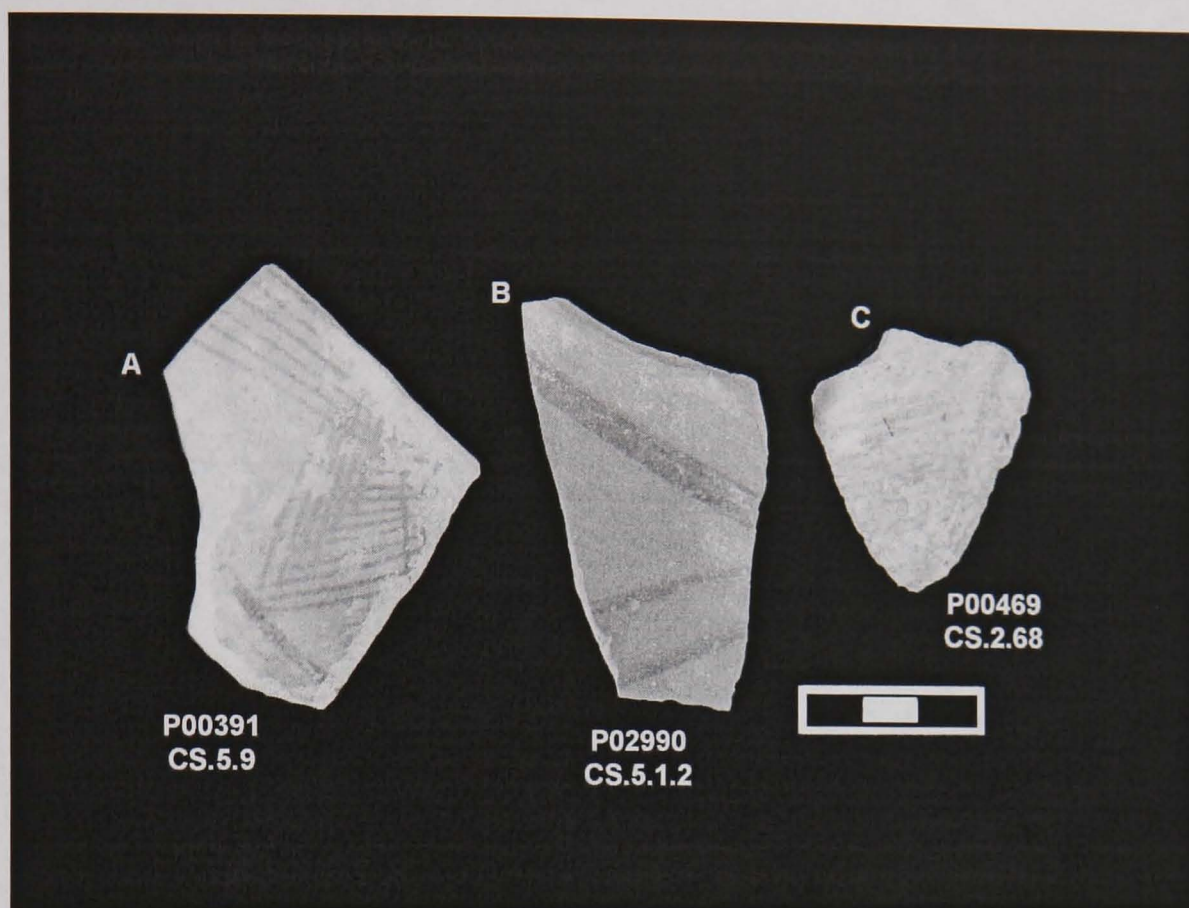


Plate 387 Umm an-Nar body sherds with painted decoration: UMPGW (A-C)

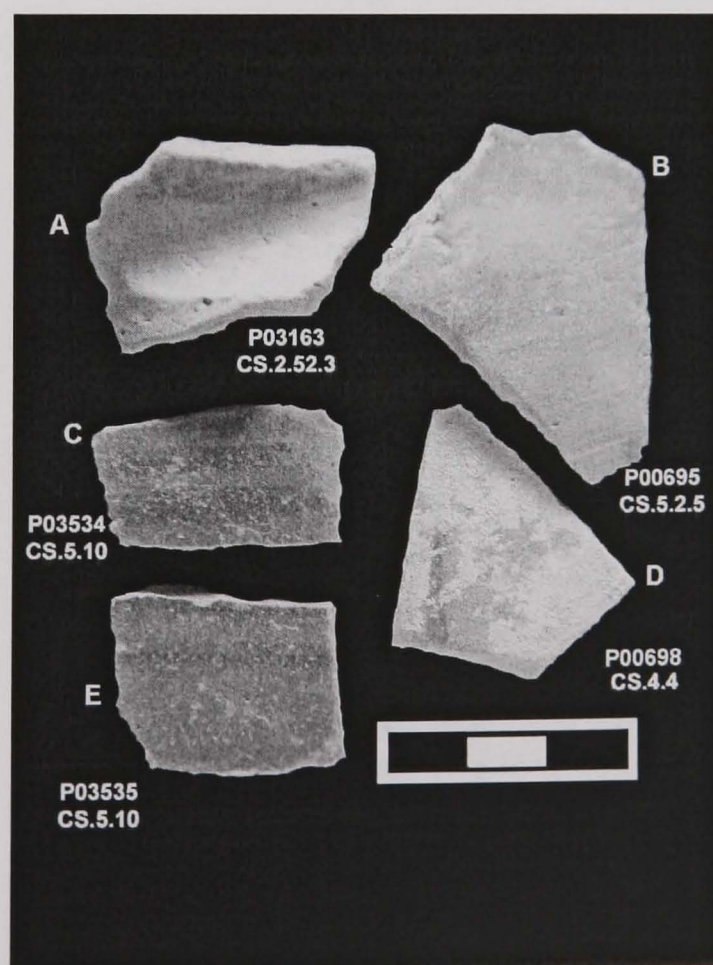


Plate 388 Umm an-Nar body sherds with painted decoration: UMFBPW (A) & UMFRPW (B-D)

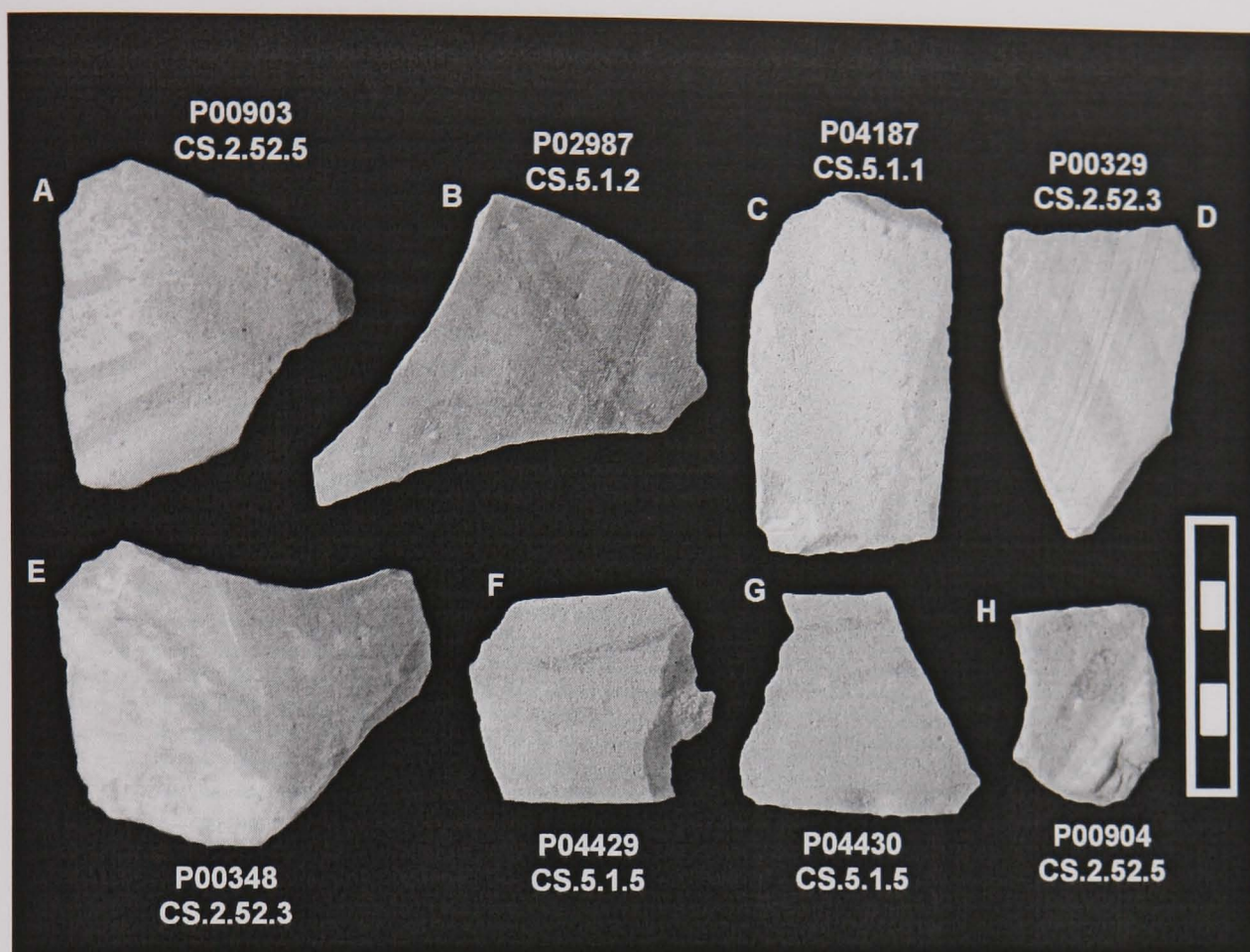


Plate 389 Umm an-Nar body sherds with painted decoration: UMFBPW (A-H)

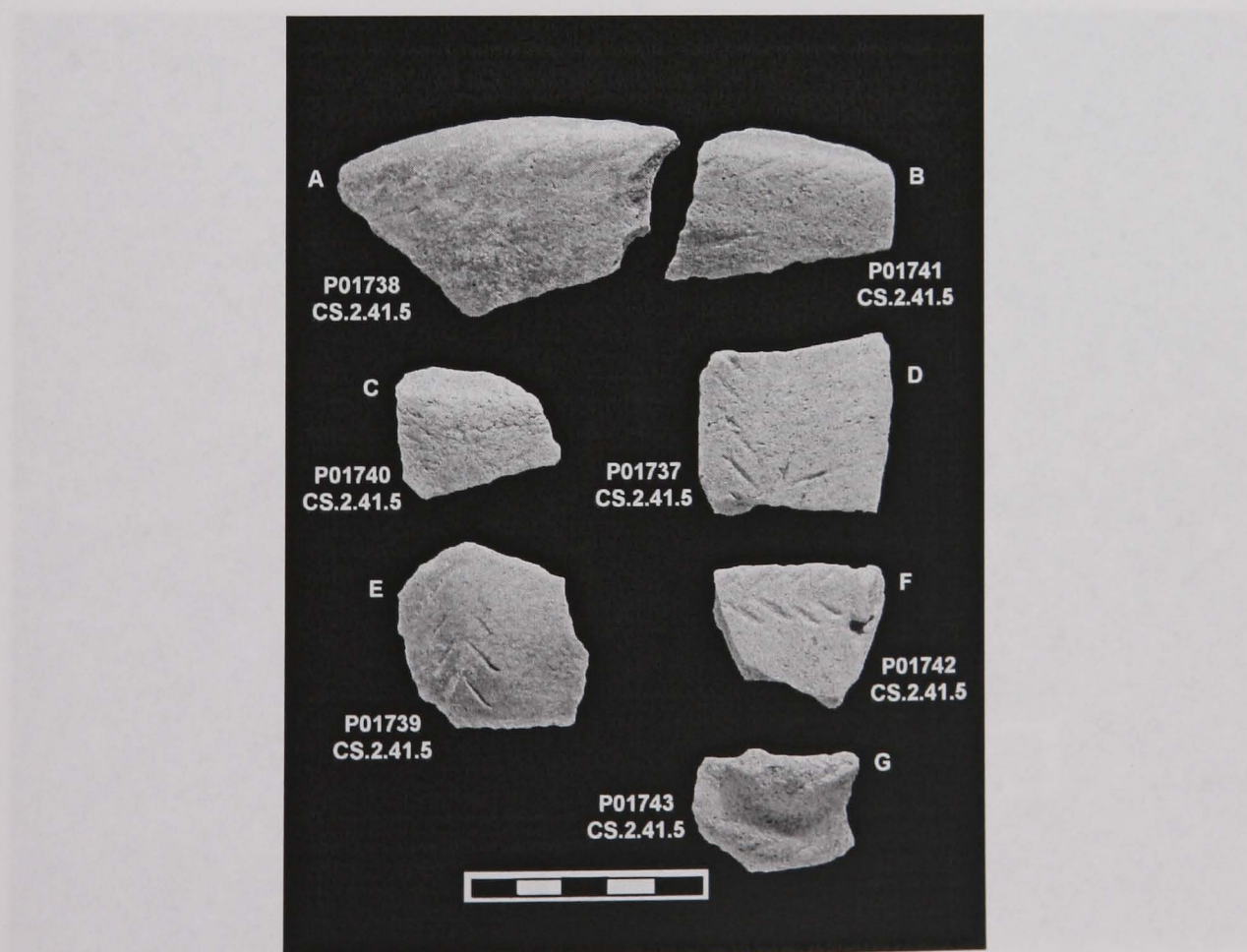


Plate 390 Umm an-Nar body sherds with incised decoration: UMCW (A-G)

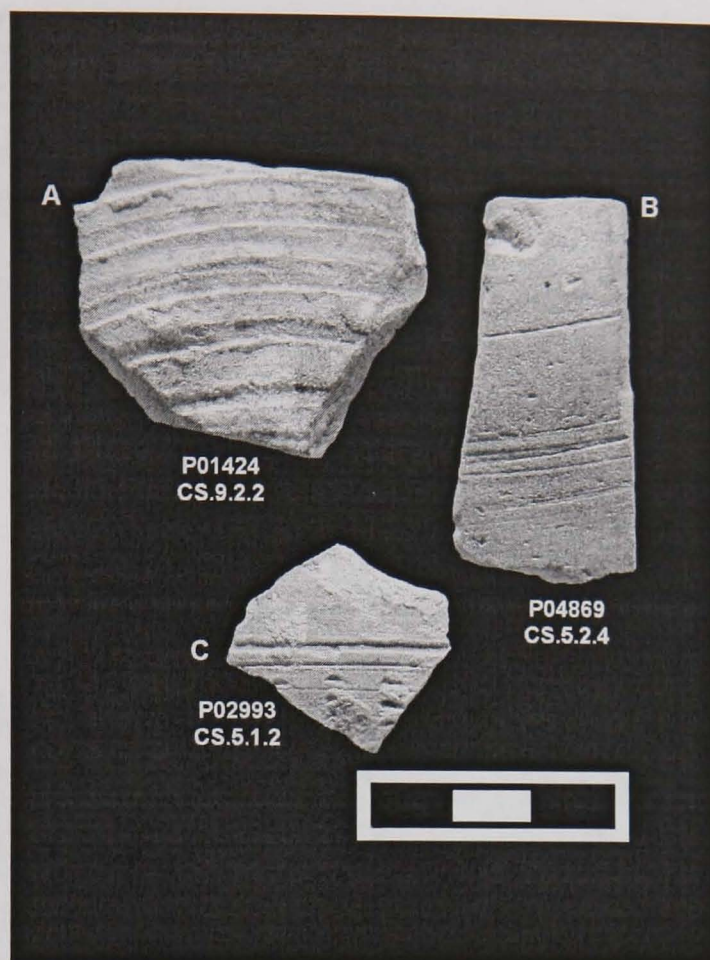


Plate 391 Umm an-Nar body sherds with incised decoration: UMC GW (A-C)

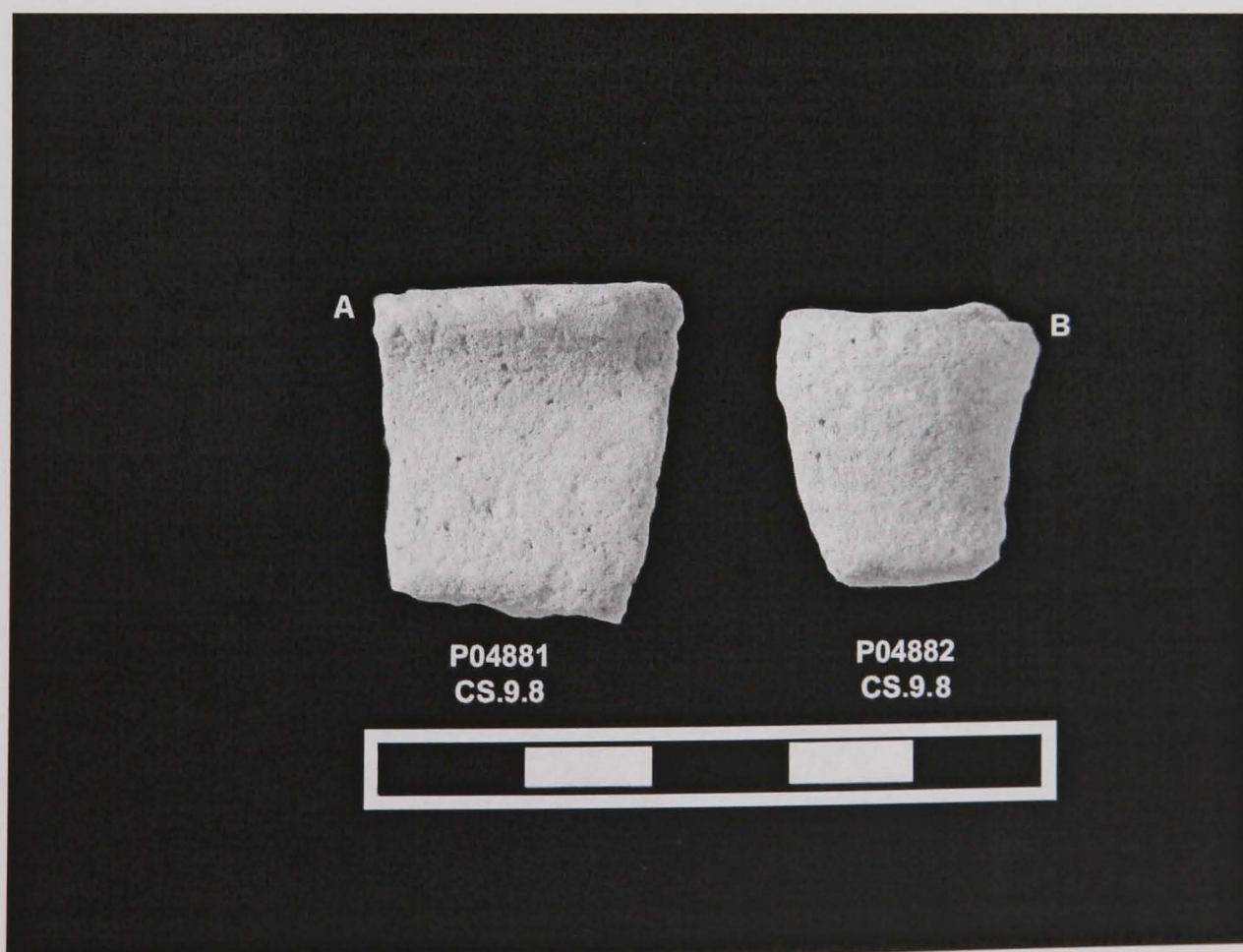


Plate 392 Wadi Suq rims: RPWS (A-B)

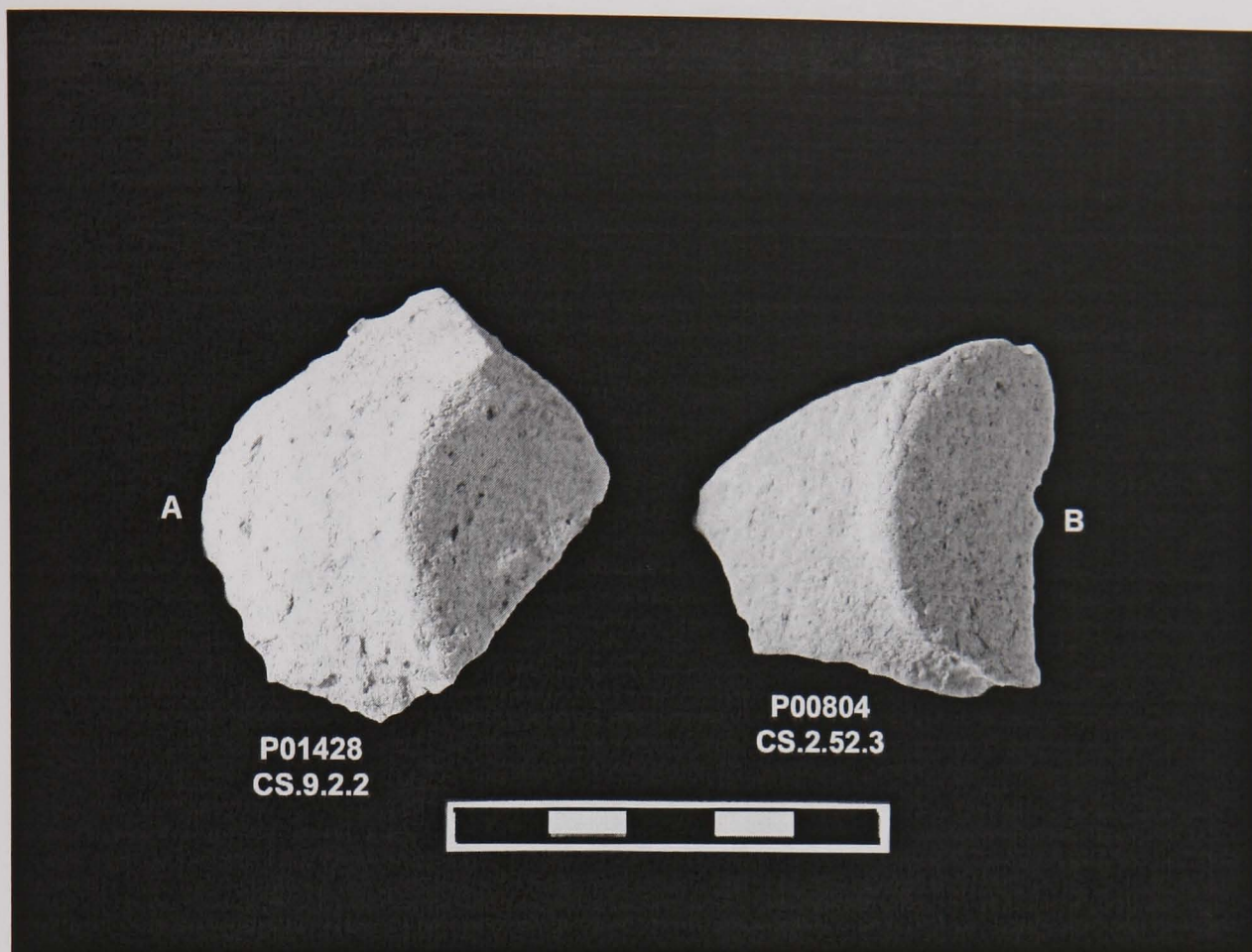


Plate 393 Wadi Suq bases: RYWS (A-B)

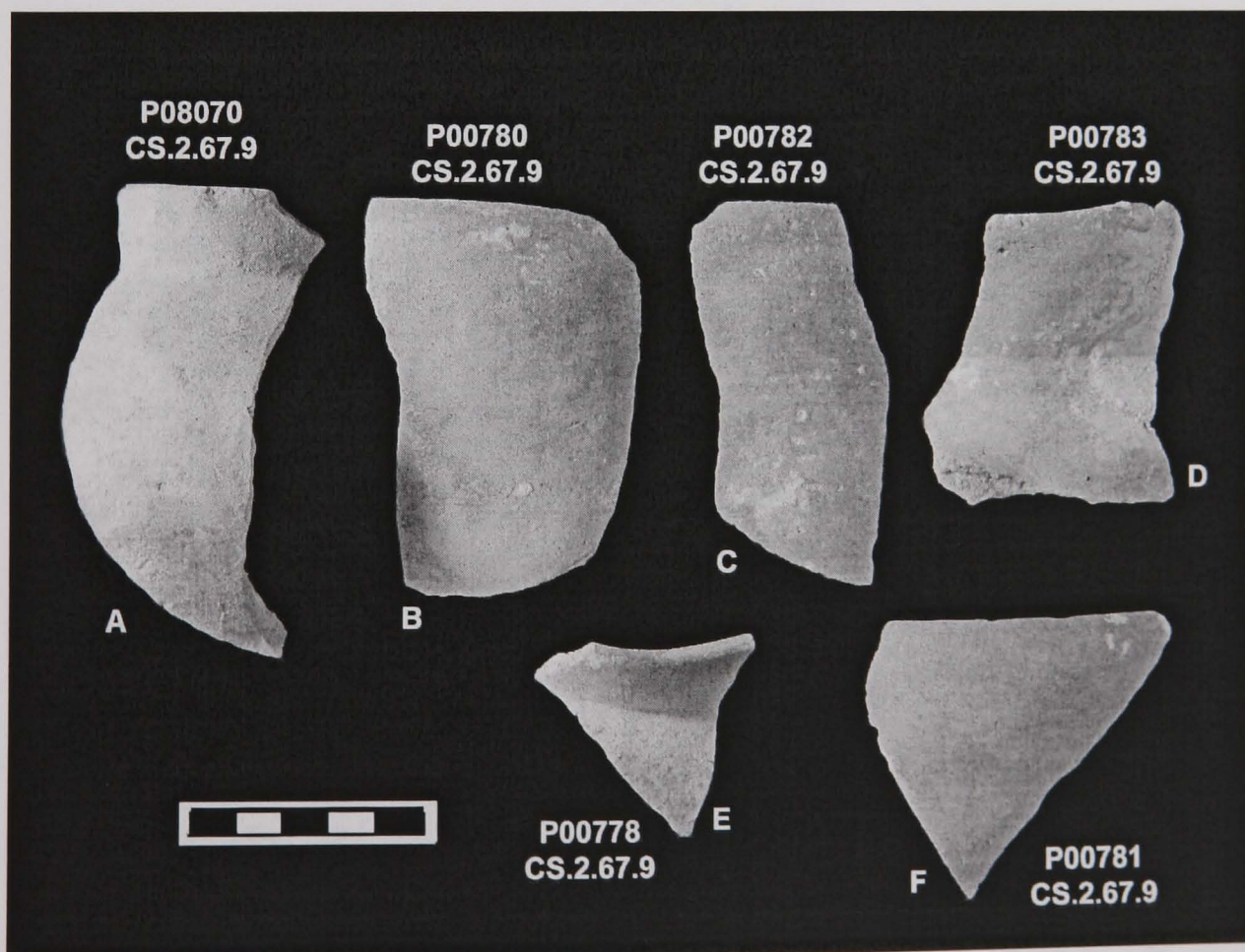


Plate 394 Early Iron Age rims: GMCEIA (A) & LFEIA (B-F)



Plate 395 Early Iron Age rim with incised decoration: THFEIA

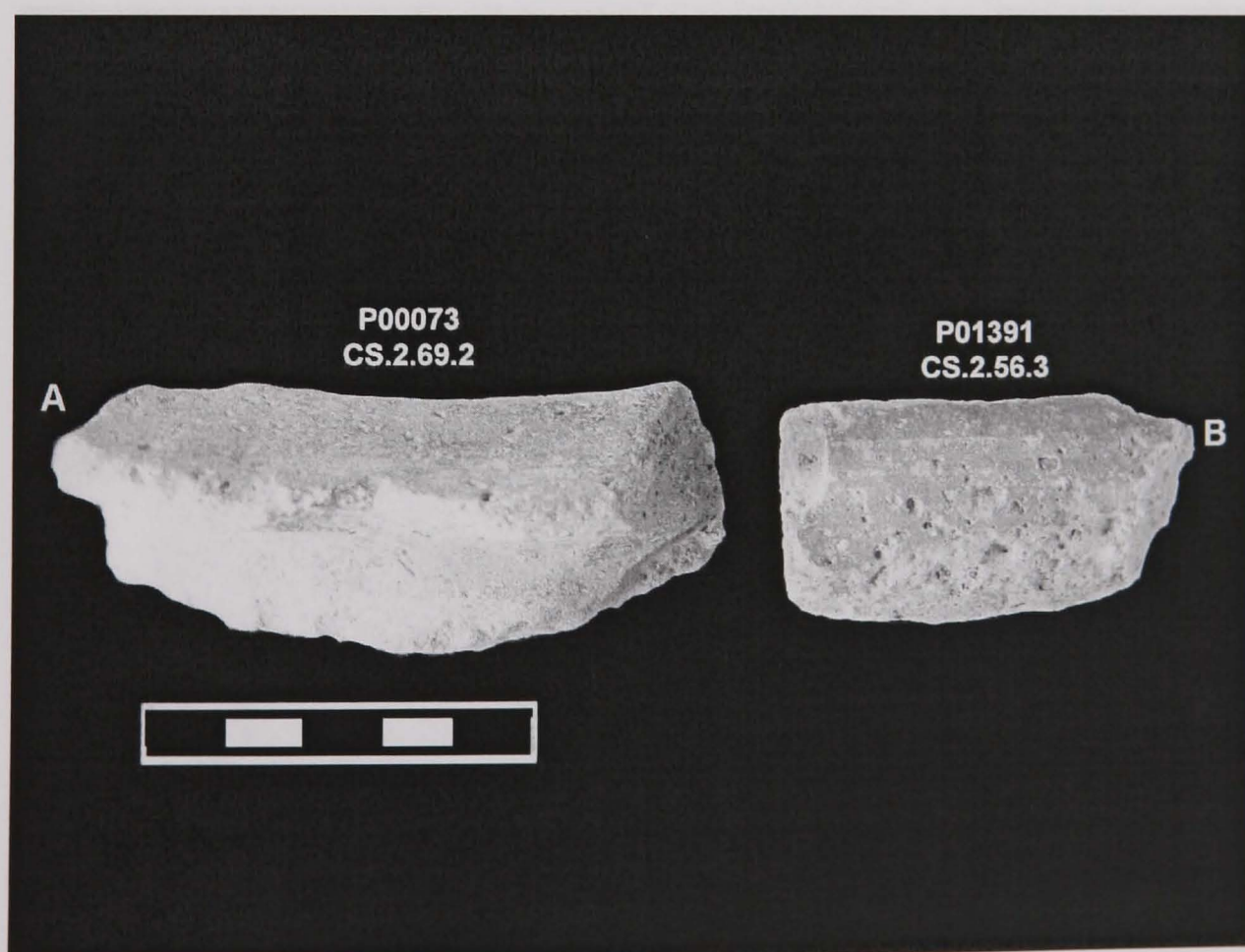


Plate 396 Early Iron Age rim with black painting: TBPEIA (A-B)



Plate 397 Early Iron Age bases: BREIA (A-C)

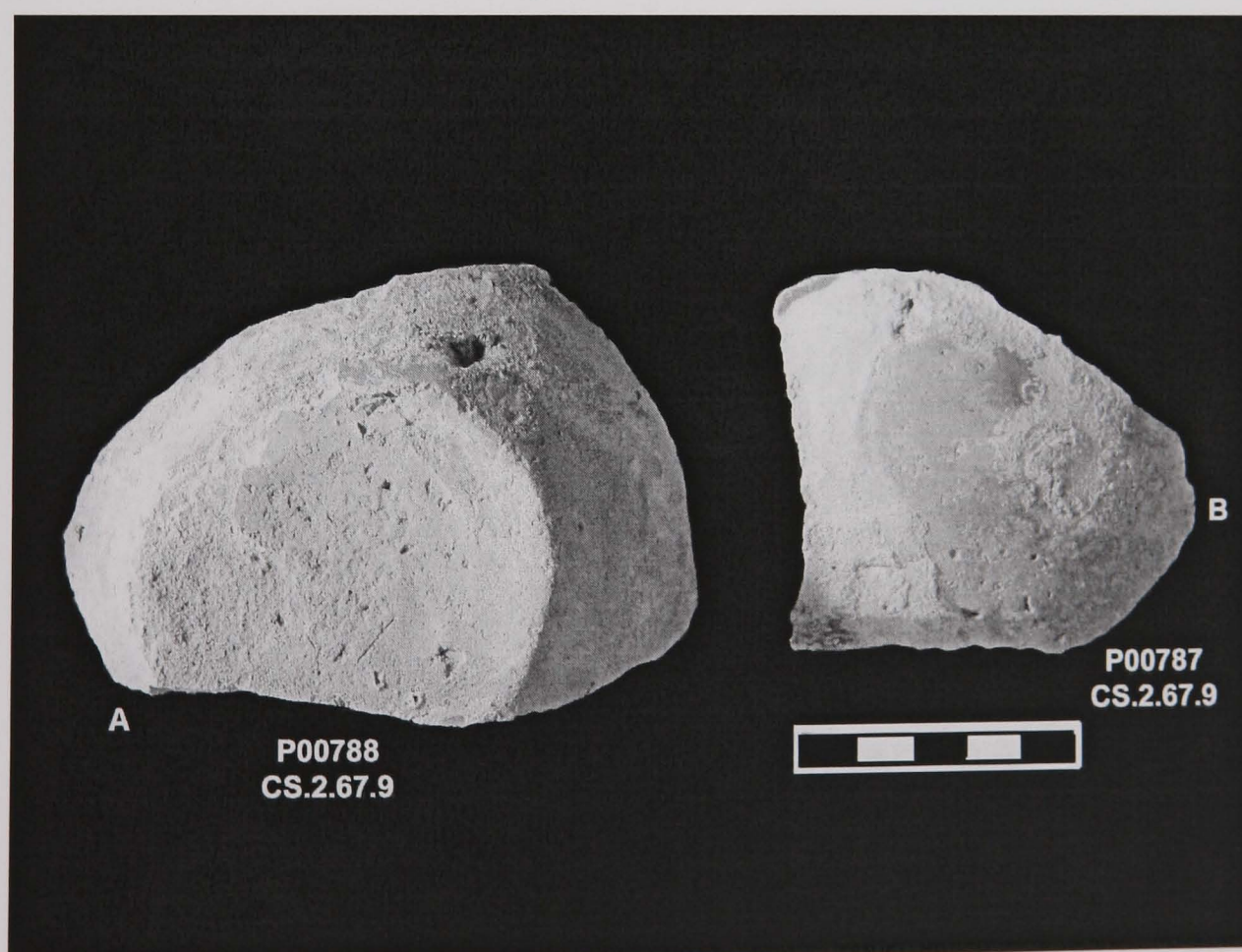


Plate 398 Early Iron Age bases: LFEIA (A-B)



Plate 399 Early Iron Age painted sherds: FPEIA (A-D)

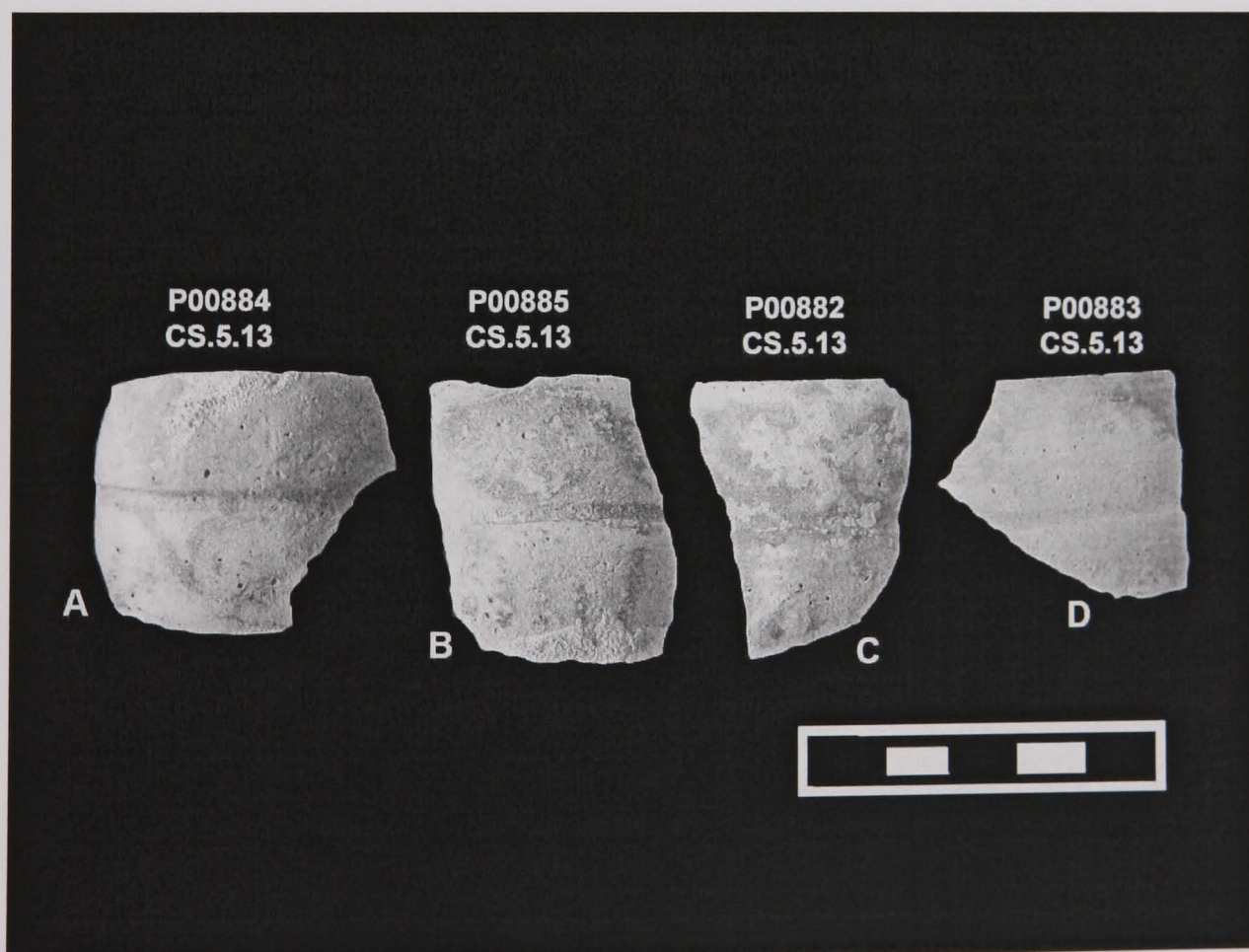


Plate 400 Early Iron Age painted sherds: FPEIA (A-D)

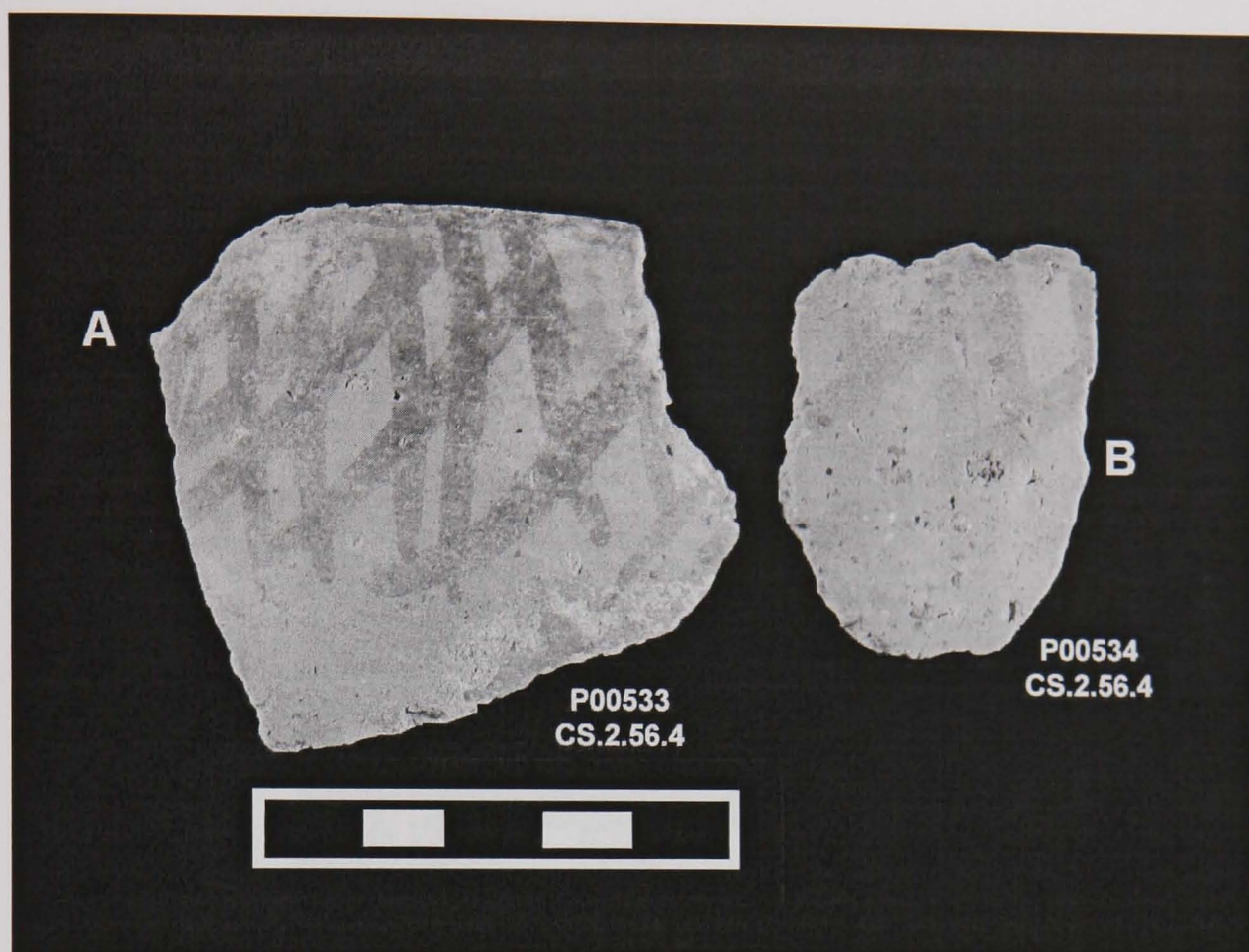


Plate 401 Early Iron Age painted sherds: PEIA (A-B)

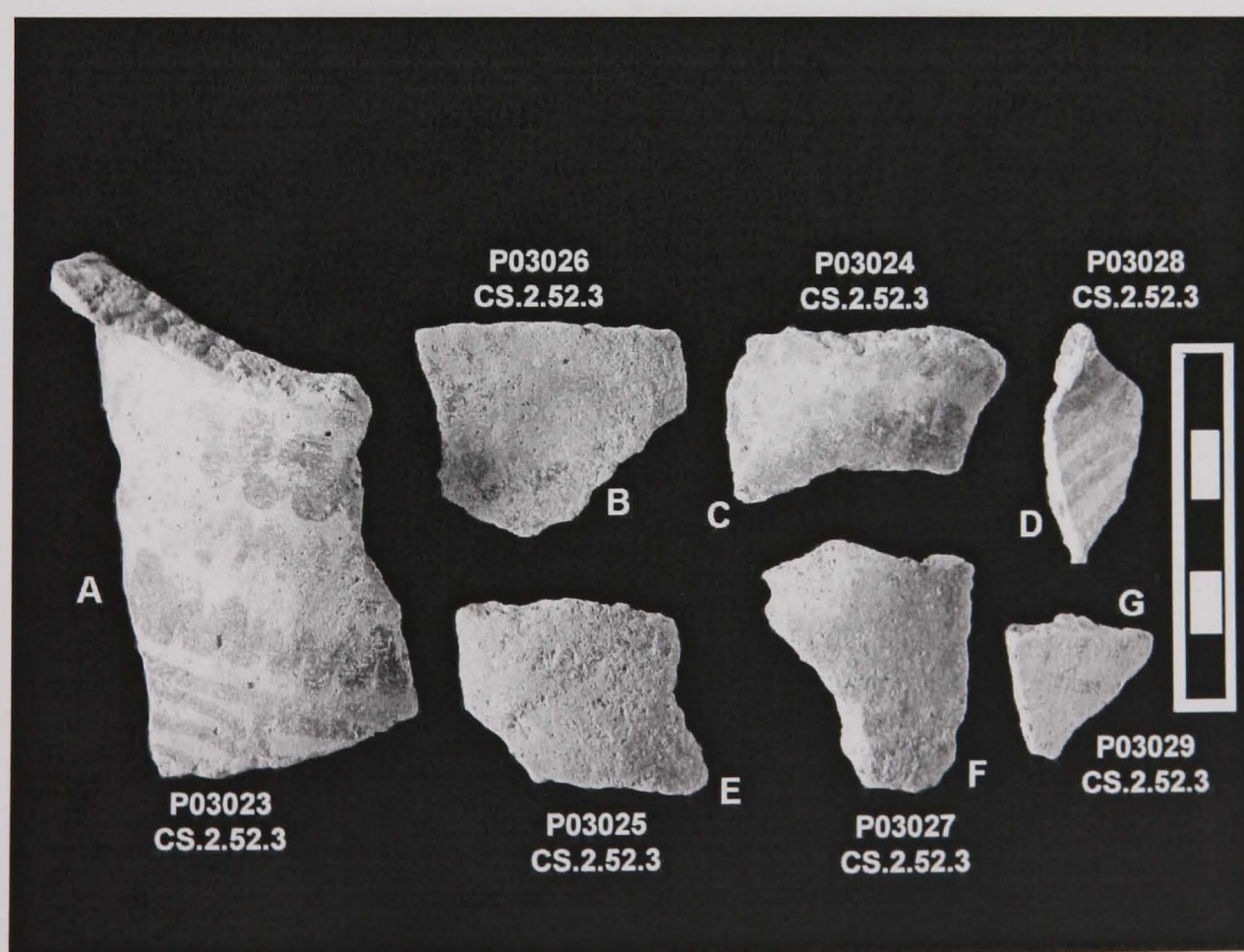


Plate 402 Early Iron Age painted sherds: PEIA (A-G)

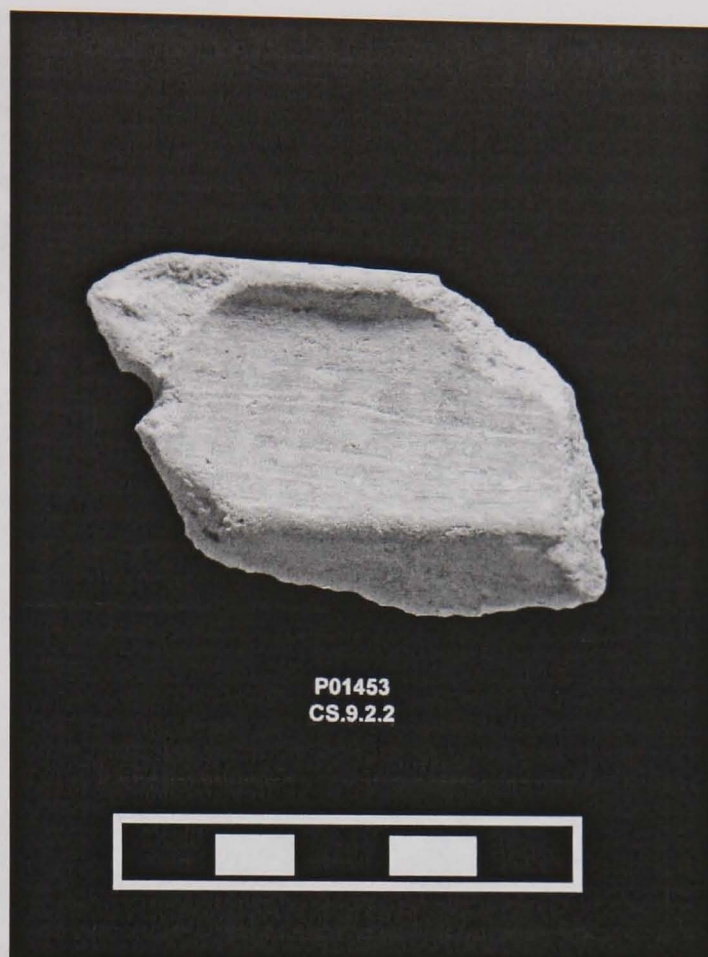


Plate 403 Early Iron Age painted sherds: PEIA

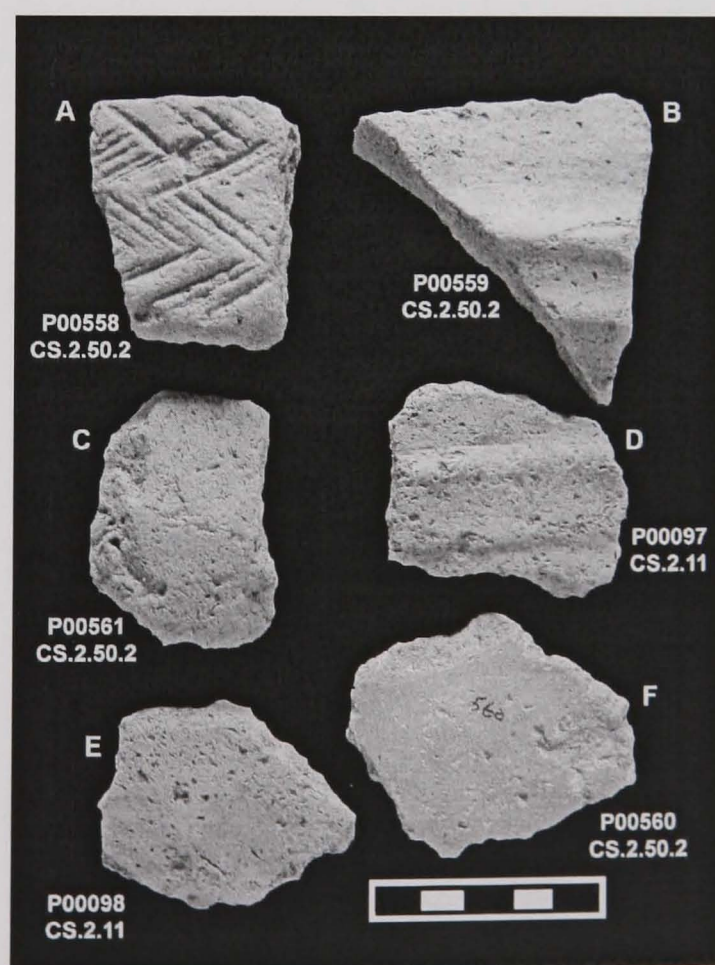


Plate 404 Early Iron Age incised and projected decoration: GSCEIA (A-F)

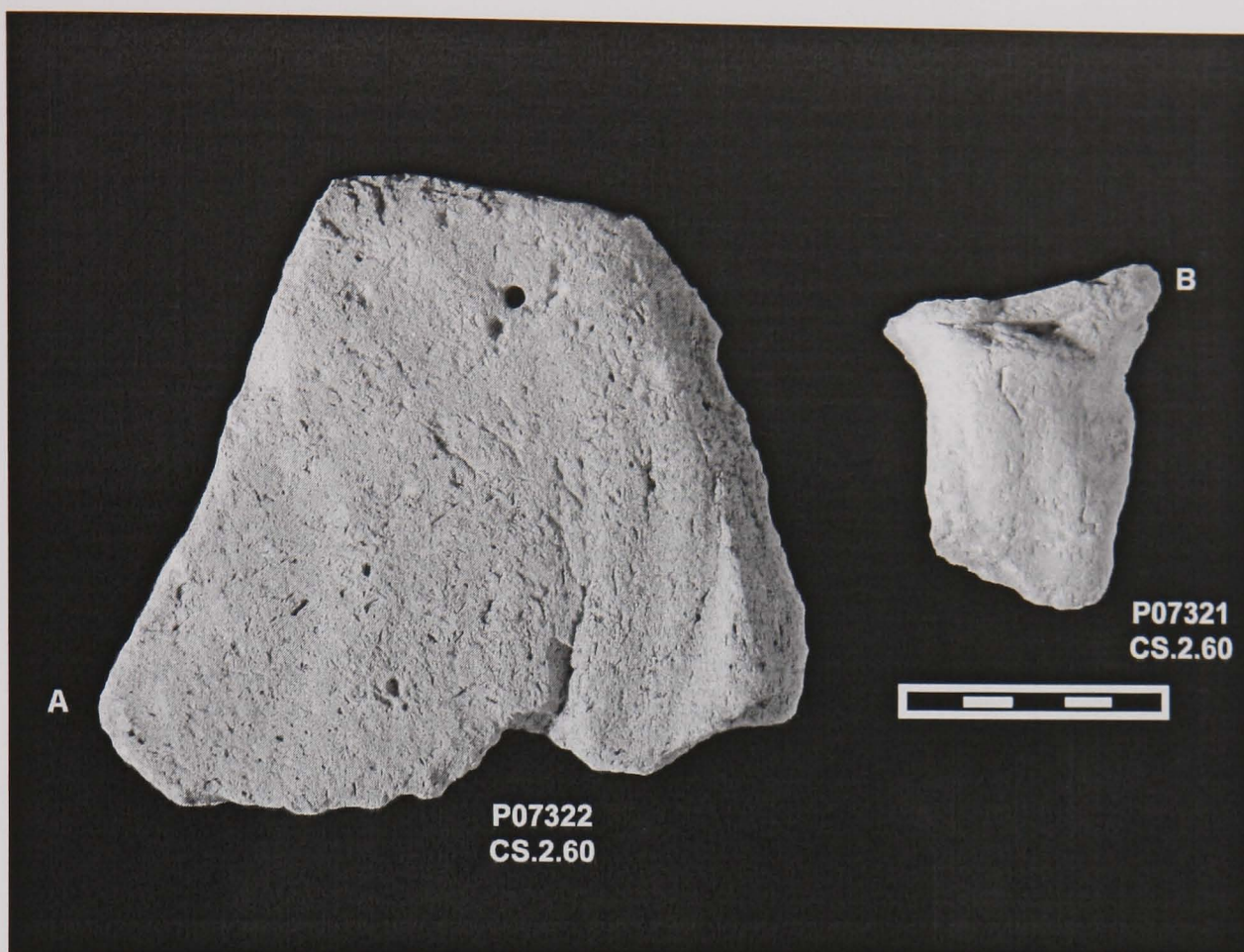


Plate 405 Early Iron Age perforated sherd (A) & part of handle (B): THFEIA

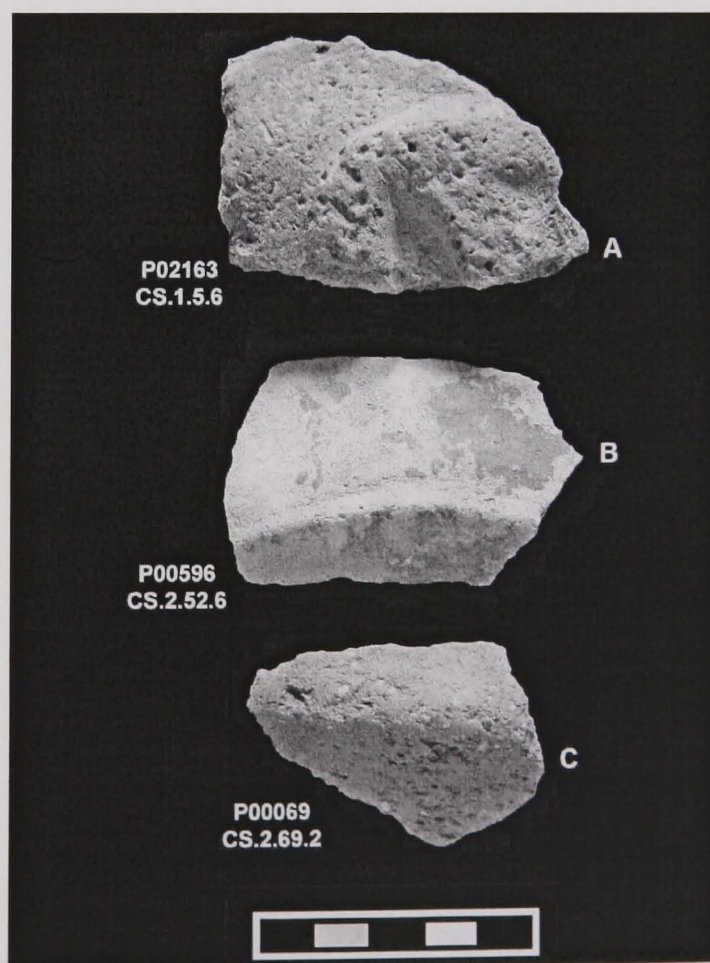


Plate 406 Early Iron Age sherd with snake appliqué (A) & parts of bases (B-C): GSCEIA



Plate 407 Early Iron Age perforated spout (A) & pierced lug (B): LFEIA

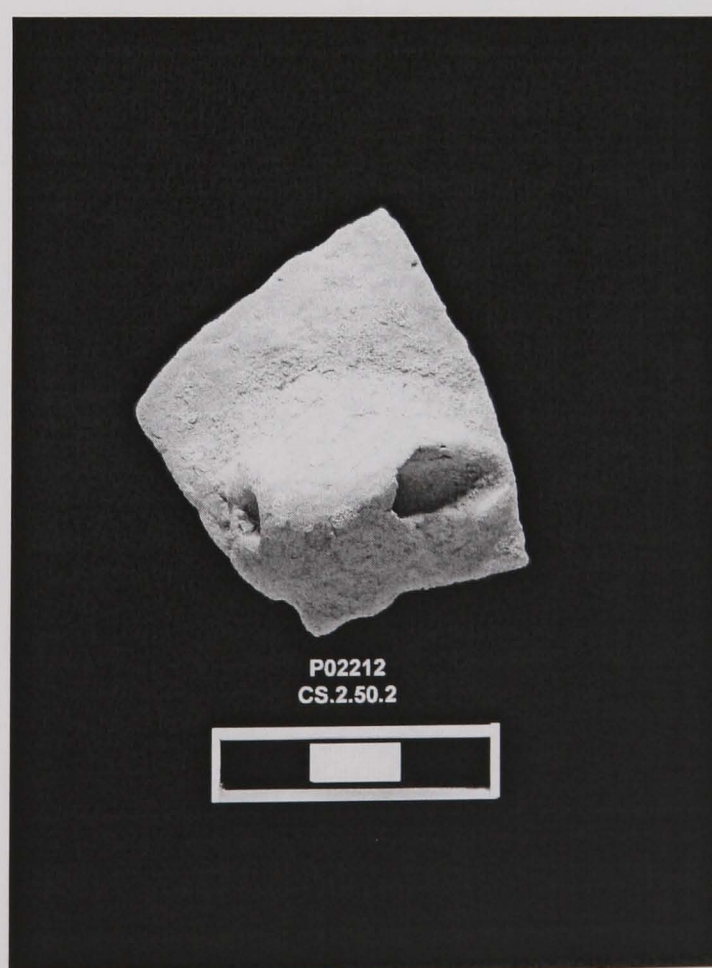


Plate 408 Early Iron Age pierced lug: TREIA

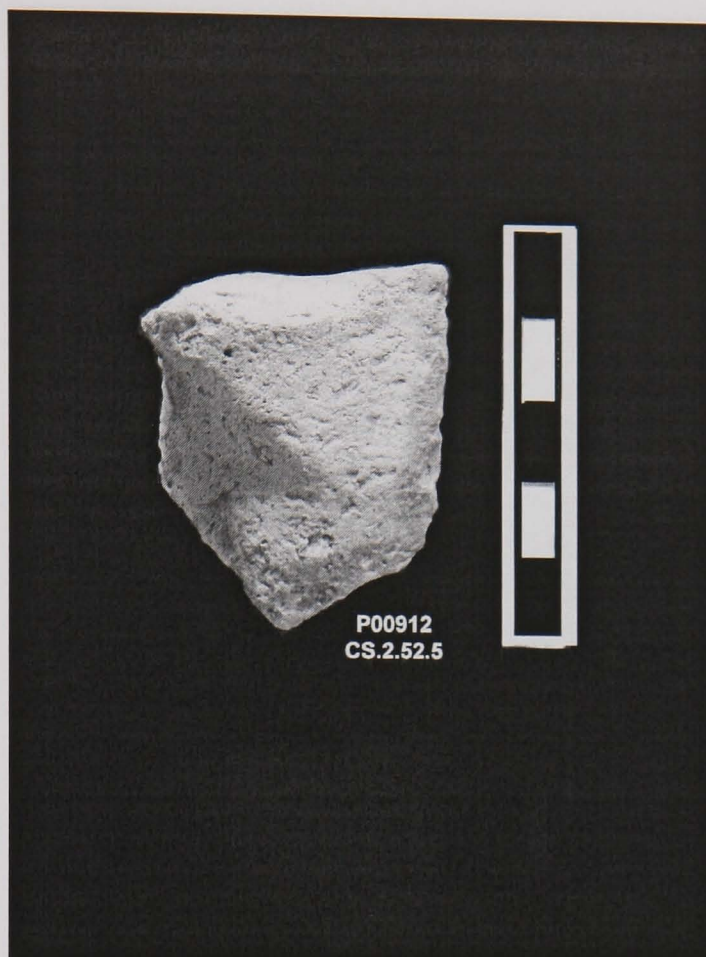


Plate 409 Early Iron Age broken knob or lug: RLREIA

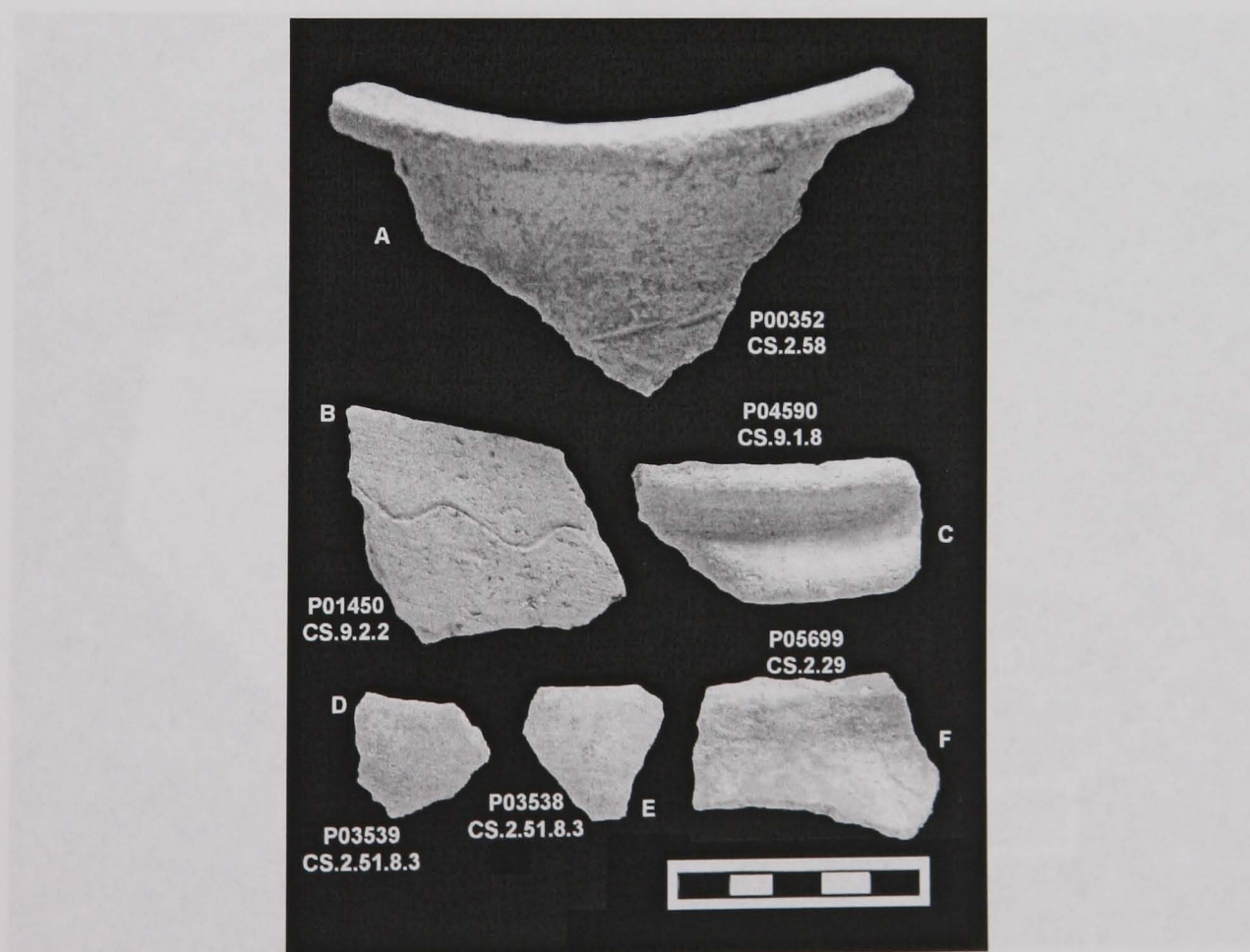


Plate 410 Late Iron Age/Samad vessel rims: TCLIA (A-F)

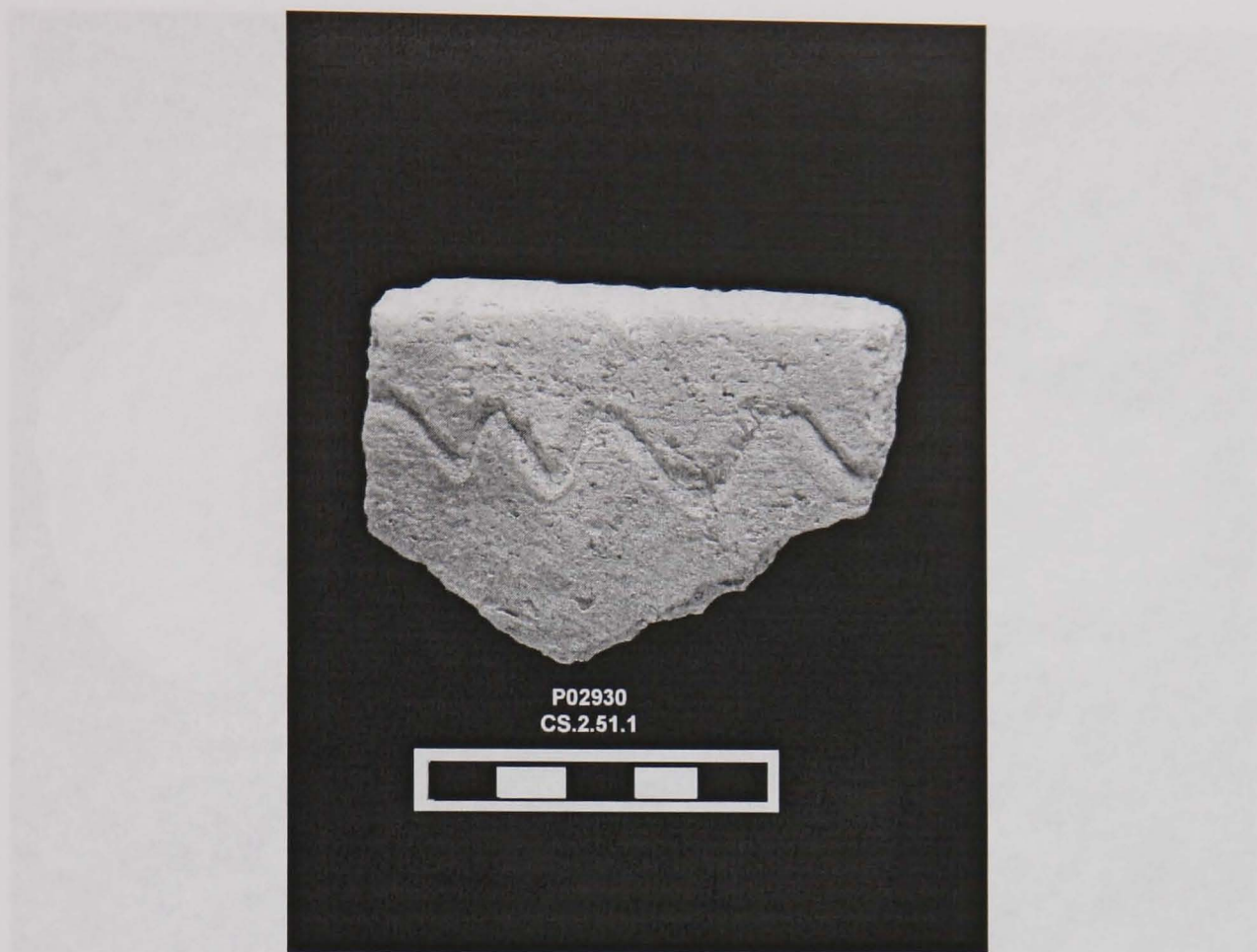


Plate 411 Late Iron Age/Samad vessel rim with incised wavy line decoration: LGCLIA



Plate 412 Late Iron Age/Samad vessel rims with nail print or pitted decoration: CLIA (A-B)

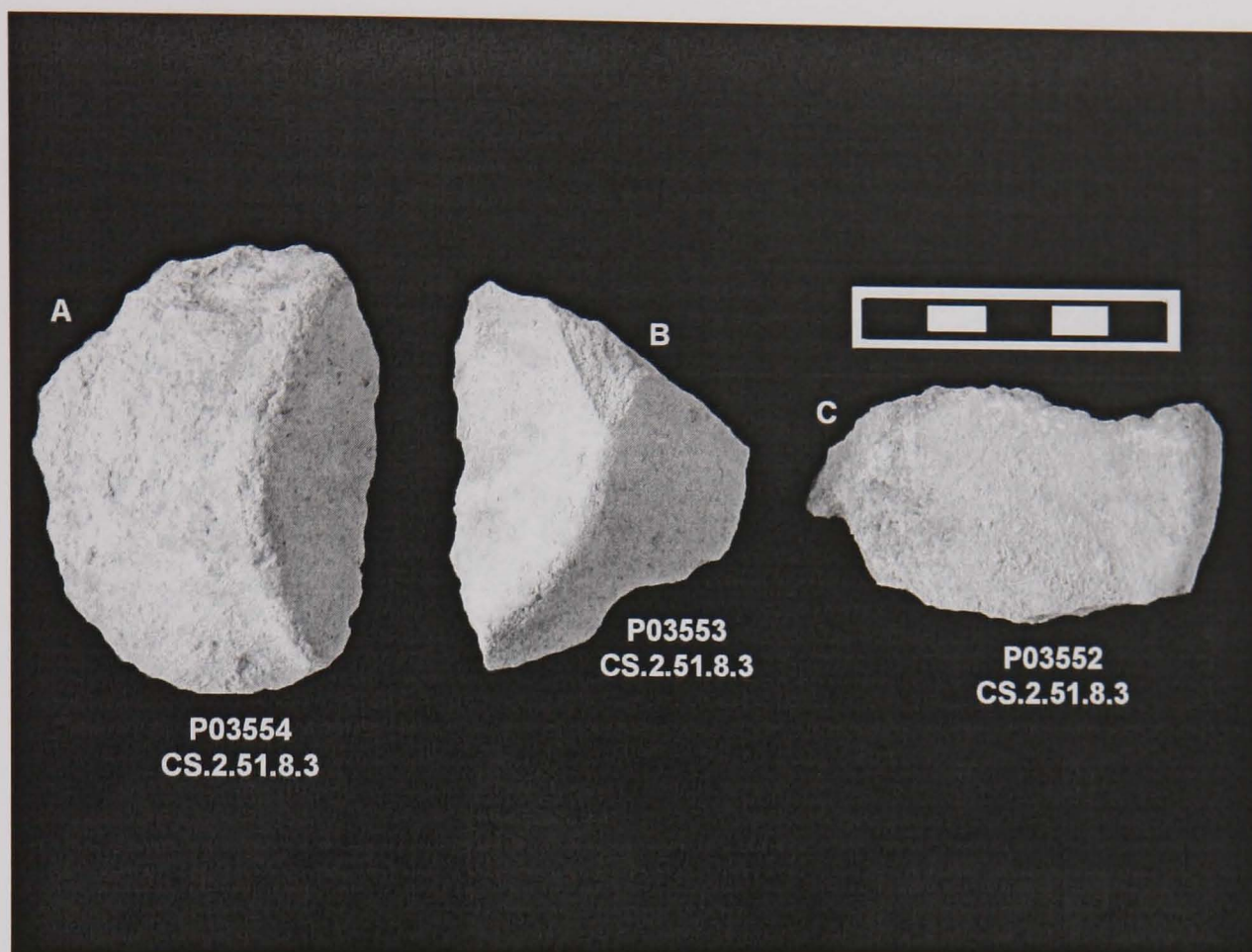


Plate 413 Late Iron Age/Samad vessel bases: CGLIA (A-C)

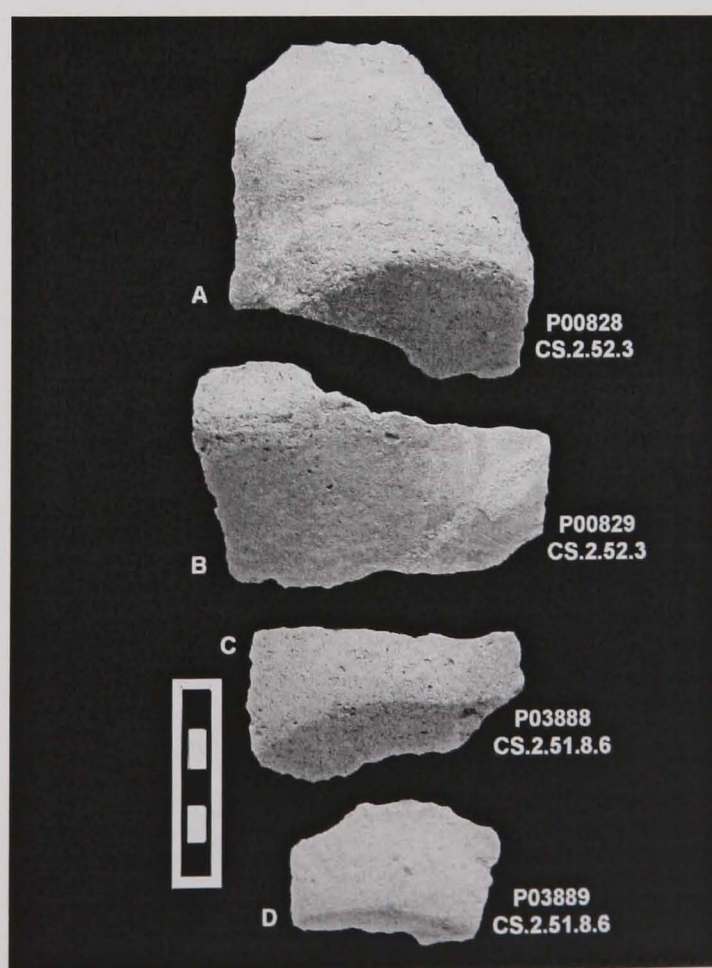


Plate 414 Late Iron Age/Samad vessel bases: TCLIA (A-D)



Plate 415 Late Iron Age/Samad body sherd (A) and part of handle or knob with dot and circle decoration (B): CLIA

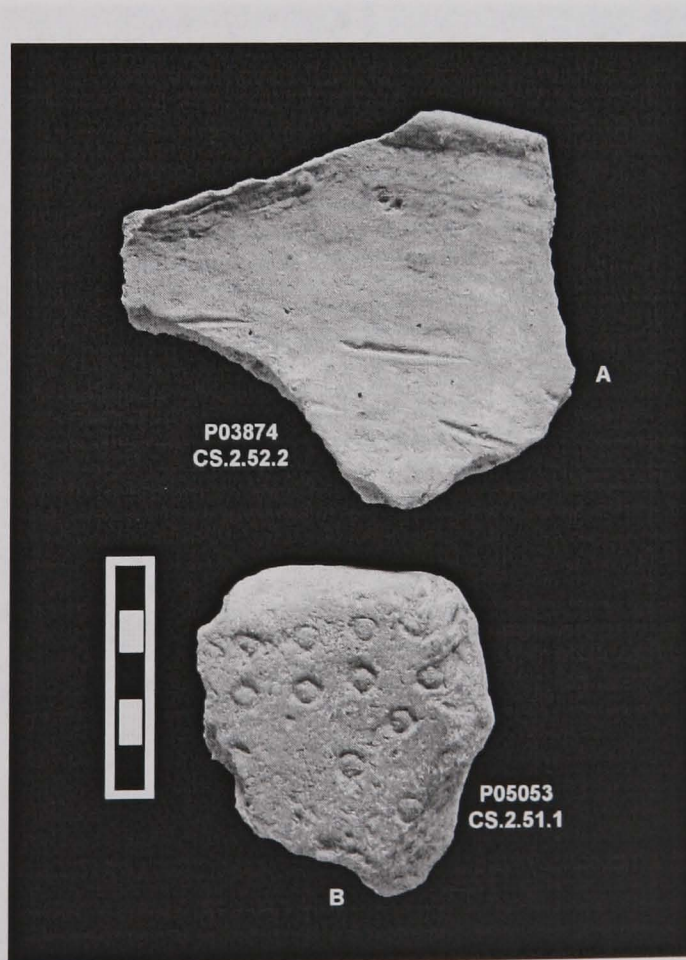


Plate 416 Late Iron Age/Samad broken rim with incised or pitted decoration (A) and body sherd with dot and circle decoration (B): CLIA

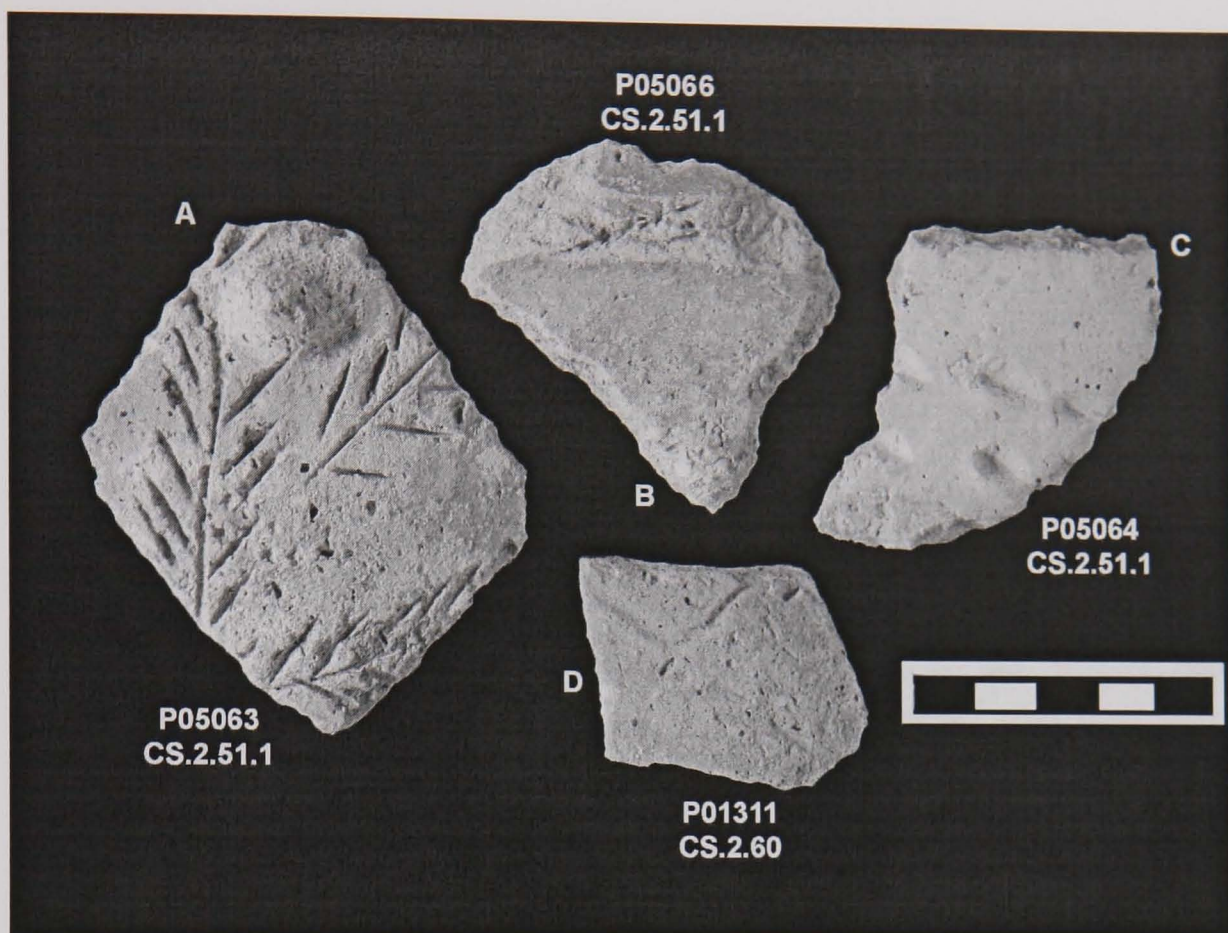


Plate 417 Late Iron Age/Samad body sherds with incised and pitted decoration: CLIA (A-D)

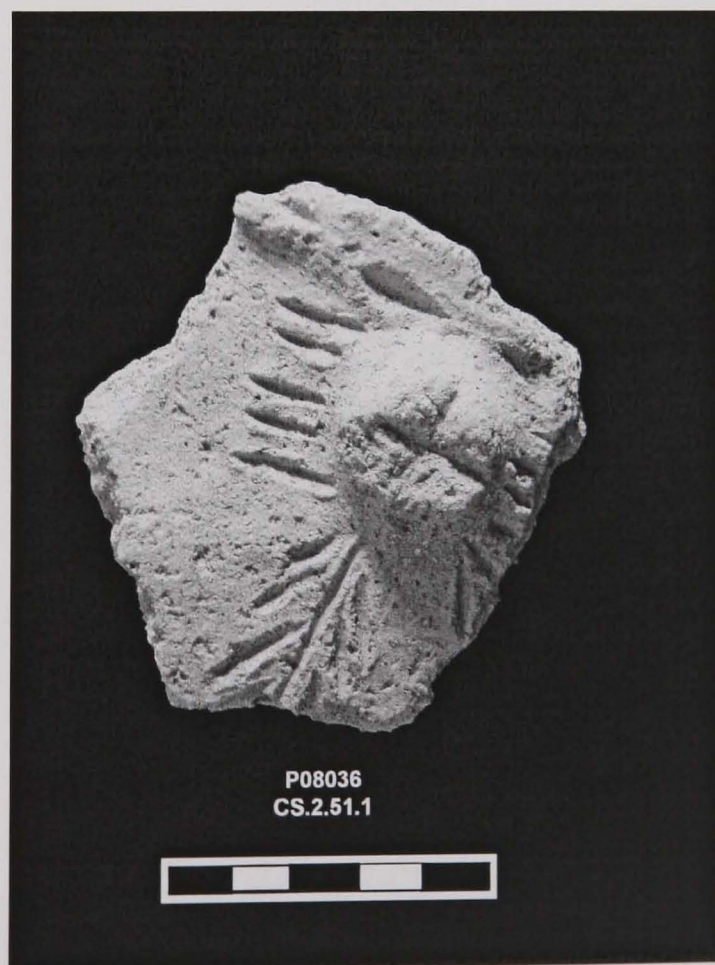


Plate 418 Late Iron Age/Samad body sherd with incised and projected decoration like the sunflower: LGCLIA

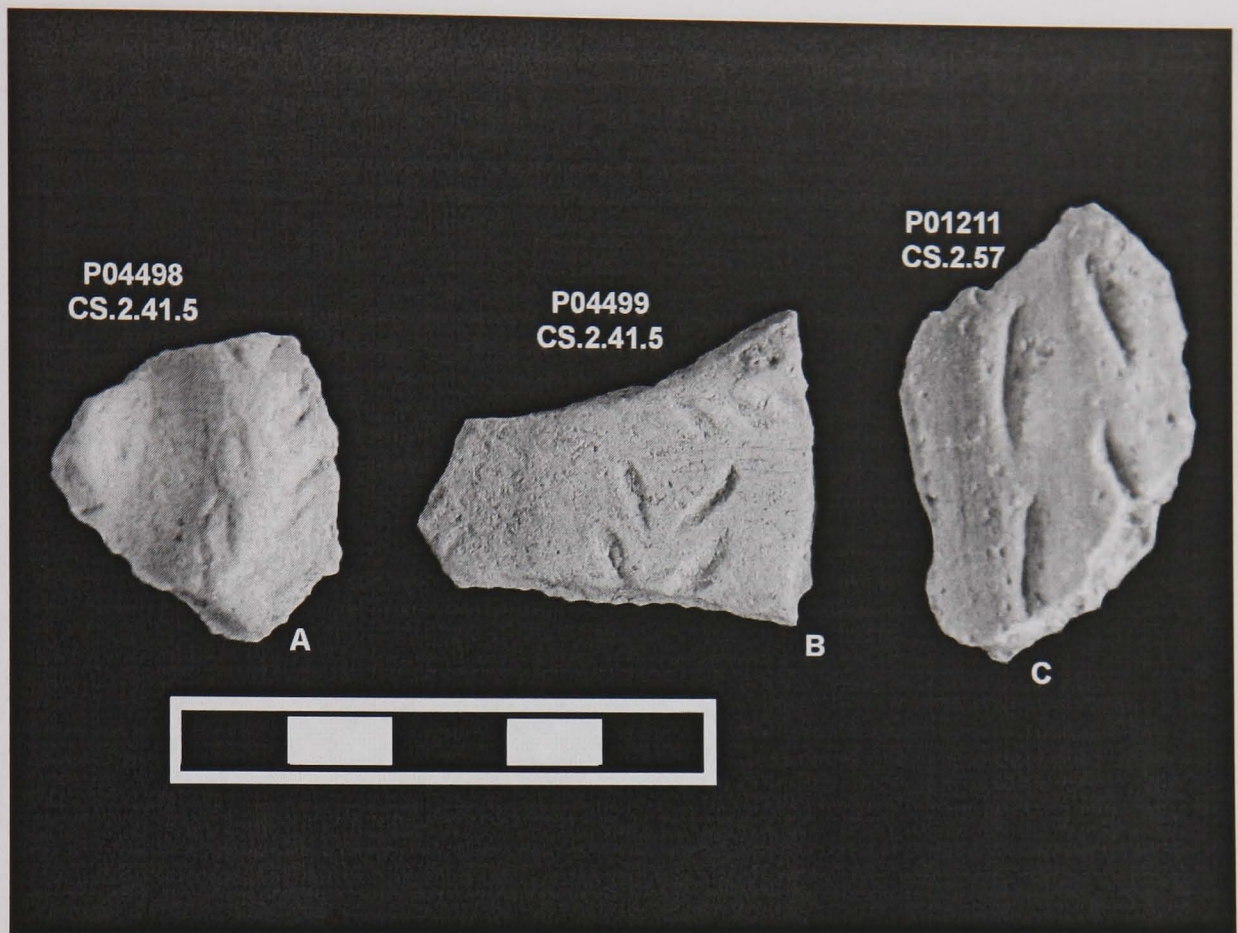


Plate 419 Late Iron Age/Samad body sherds with incised/pitted and projected-bands decoration:
CLIA (A-C)

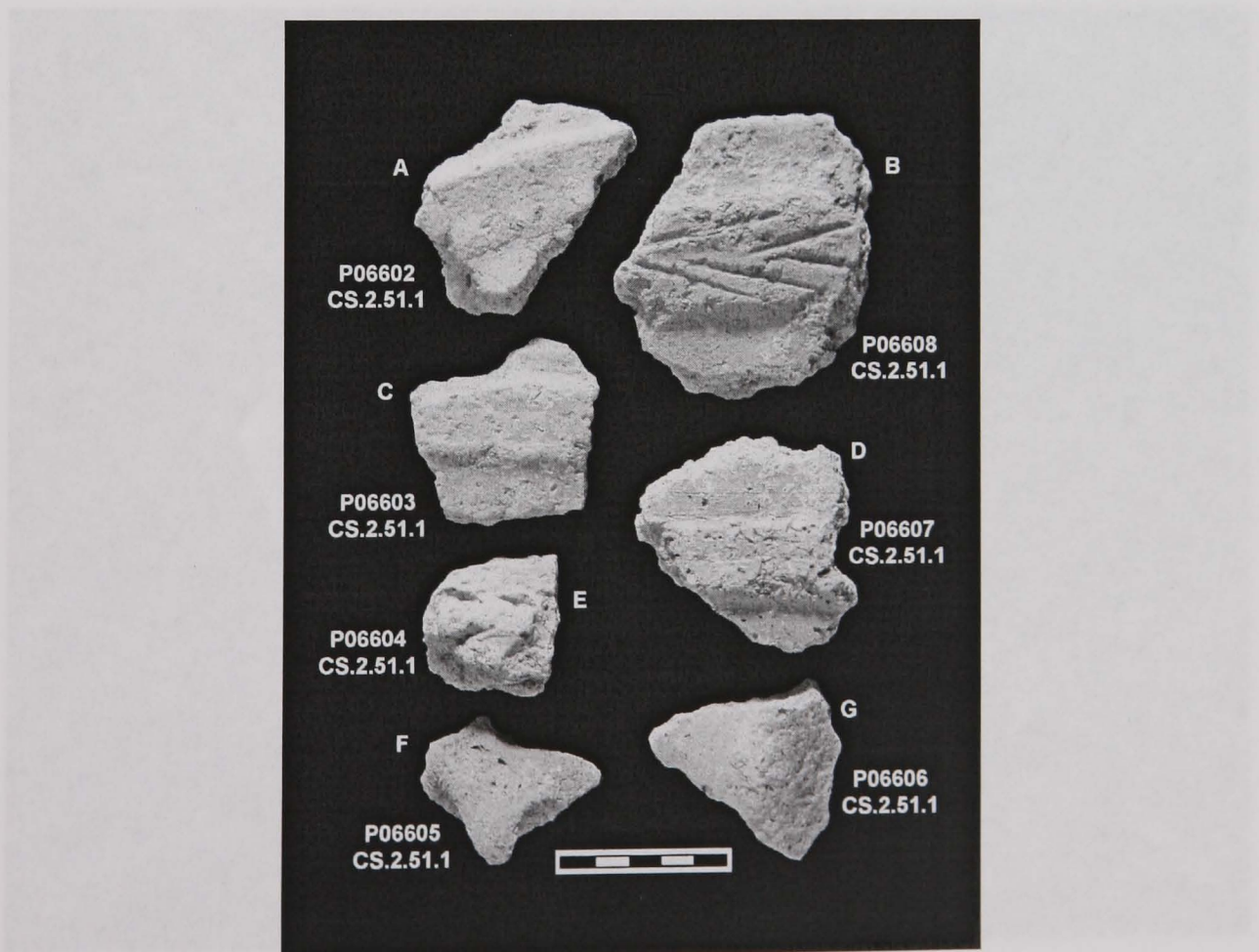


Plate 420 Late Iron Age/Samad body sherds with projected-bands decoration: CLIA (A-G)

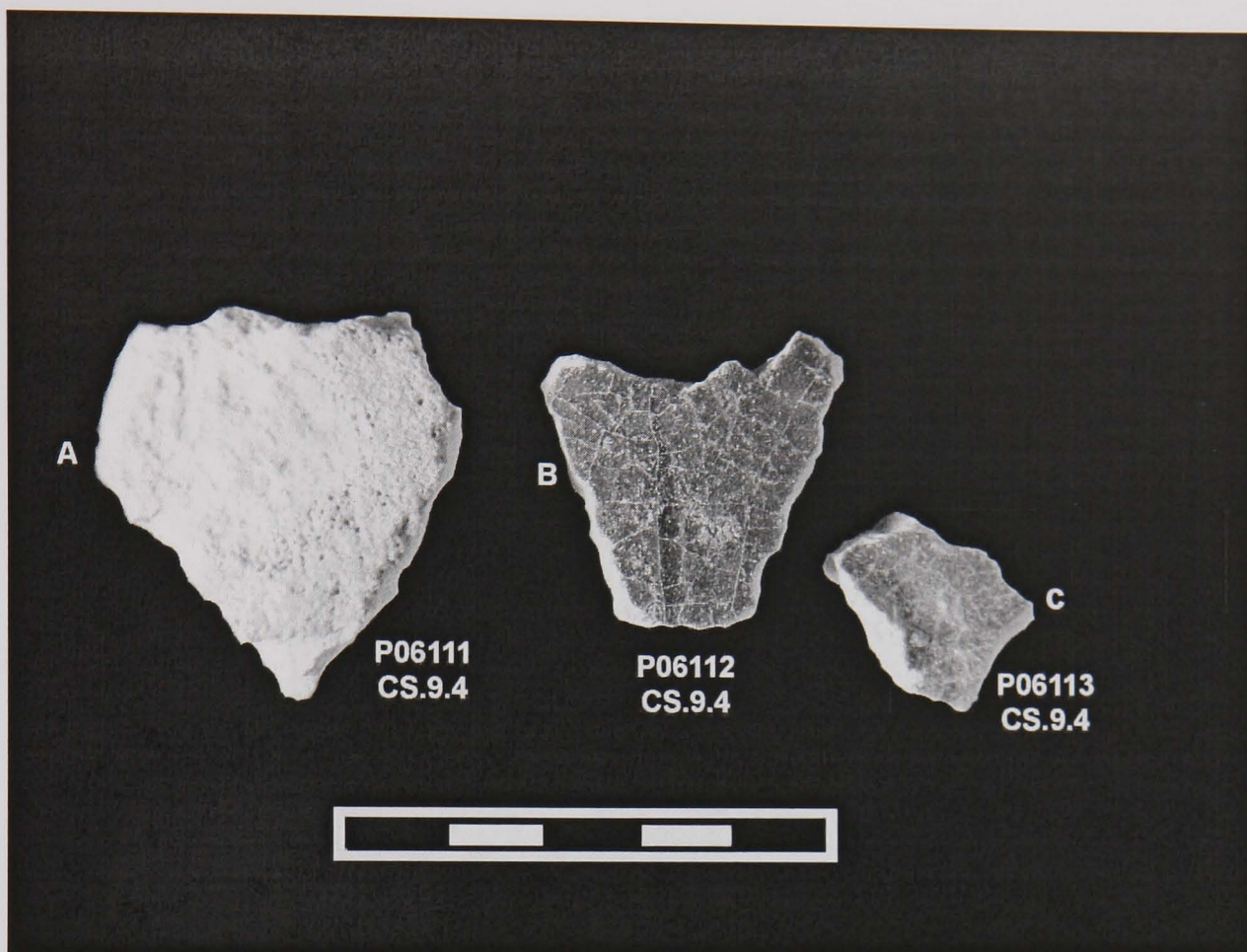


Plate 421 Pottery sherds of possibly Early Islamic: GGEI (A-C)

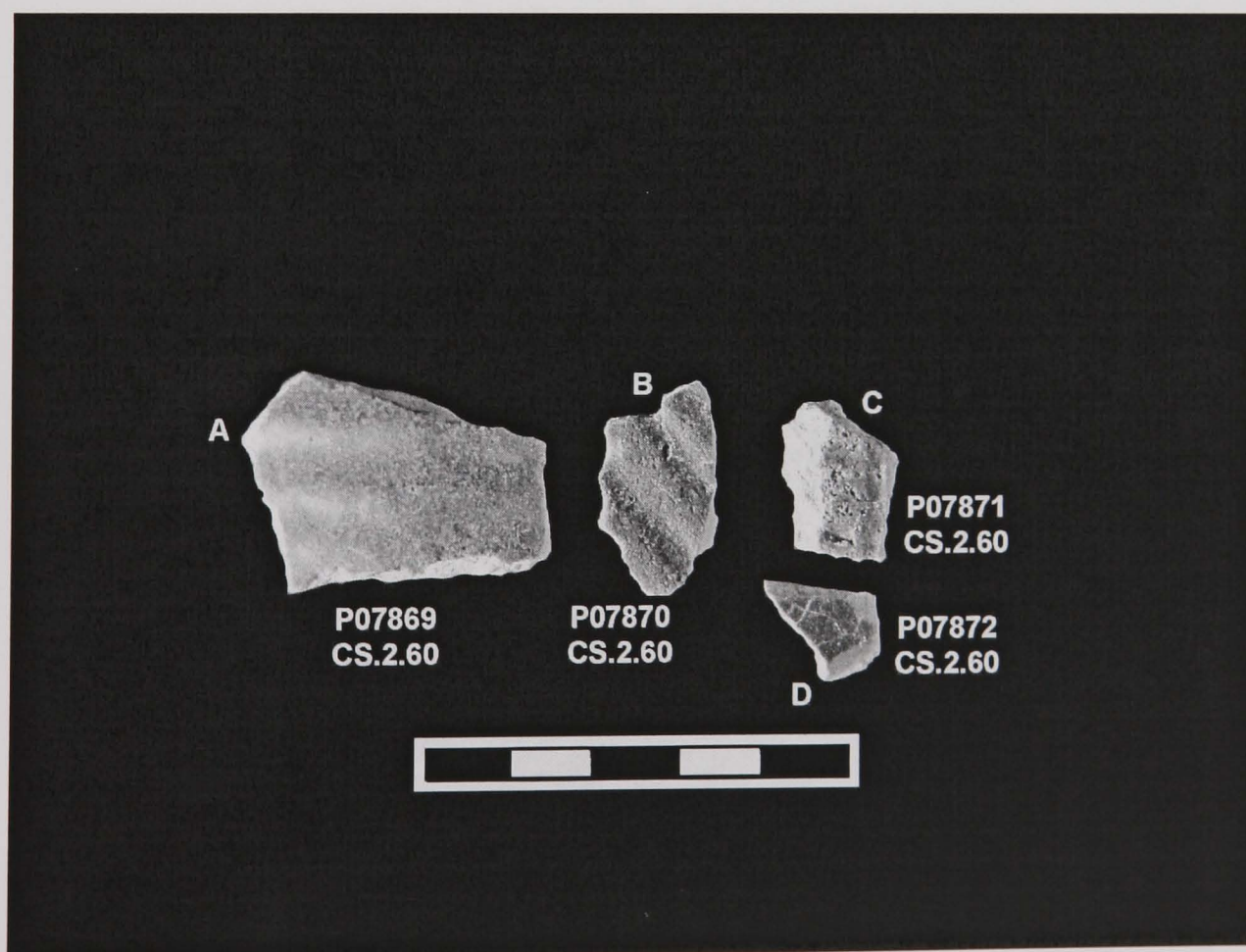


Plate 422 Pottery sherds of possibly Early Islamic: GGEI (A-D)

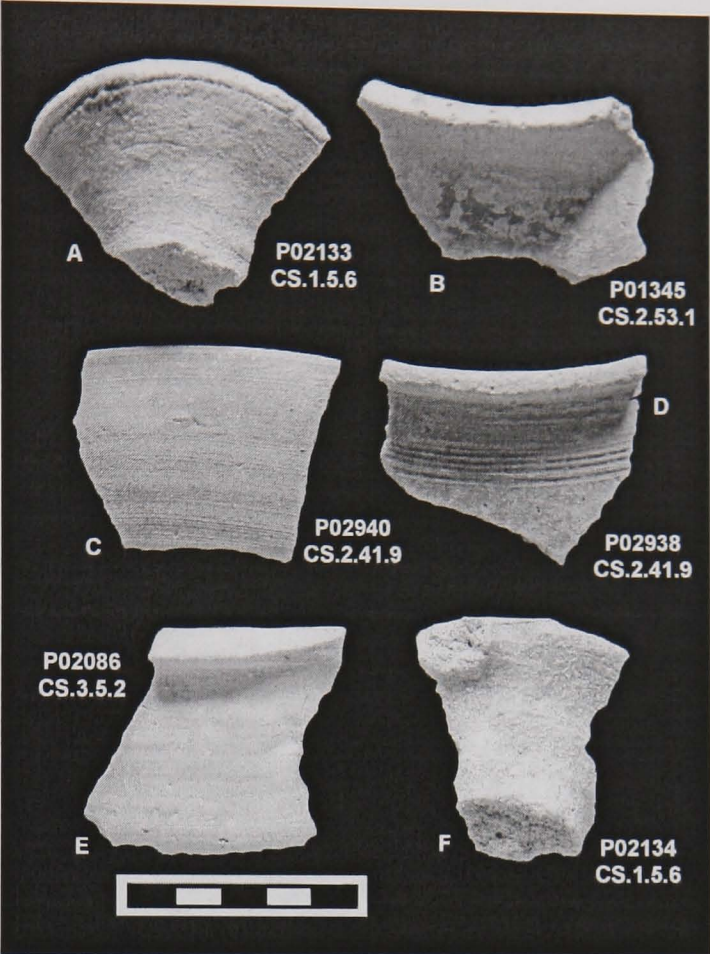


Plate 423 Middle Islamic vessel rims: CMI (A-F)

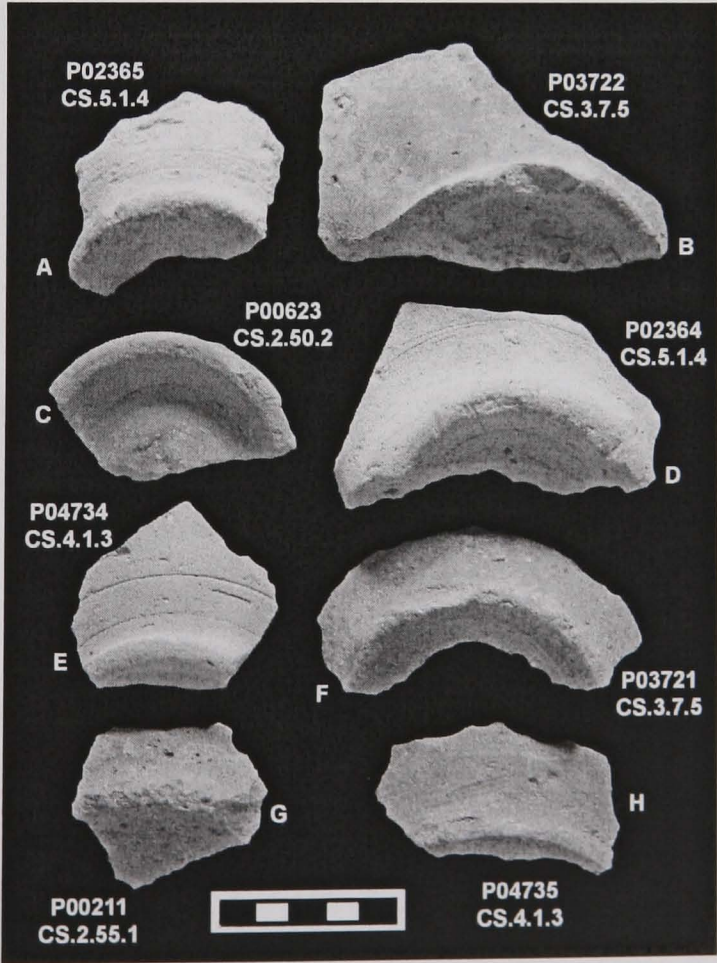


Plate 424 Middle Islamic vessel bases: CMI (A-H)

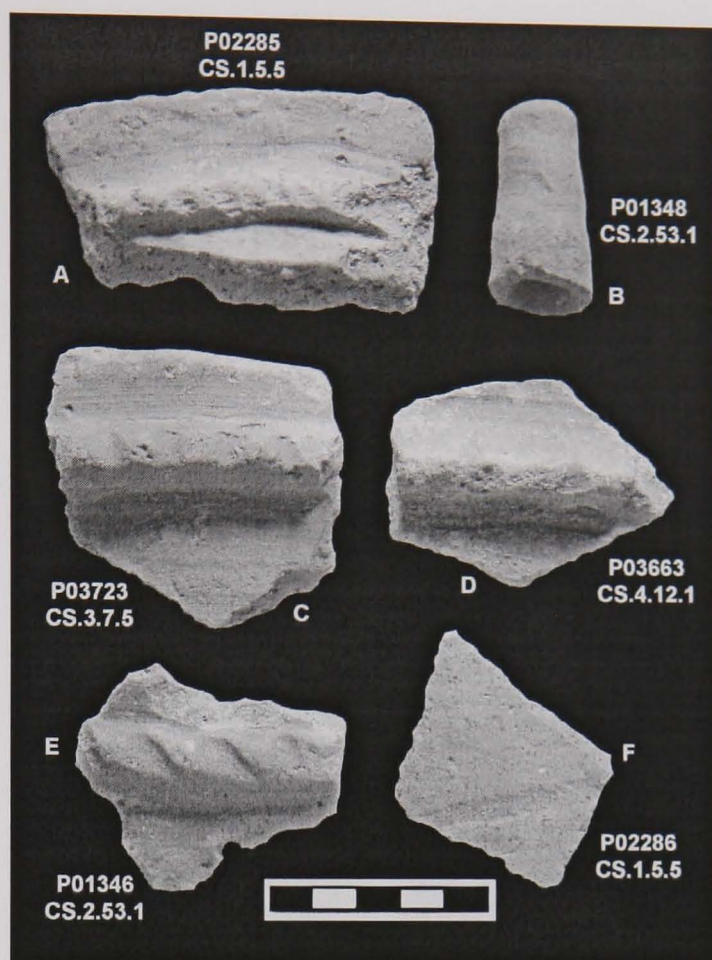


Plate 425 Middle Islamic body sherds with projected bands: CMI (A-F)

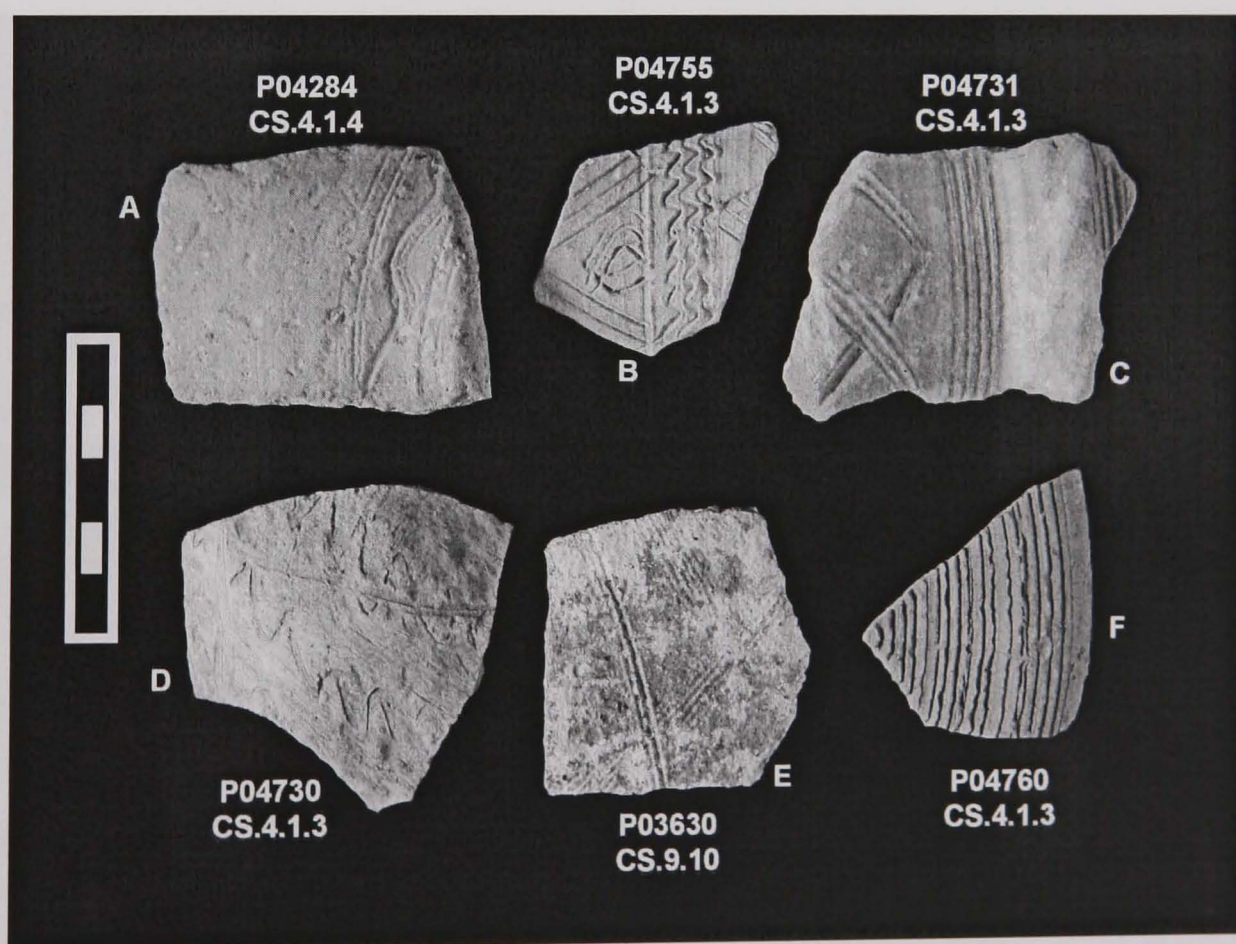


Plate 426 Middle Islamic body sherds with incised decoration: GWMI (A, B, E), CMI (C, D) & YCWMI (F)



Plate 427 Middle Islamic Nabhani ware NMIW

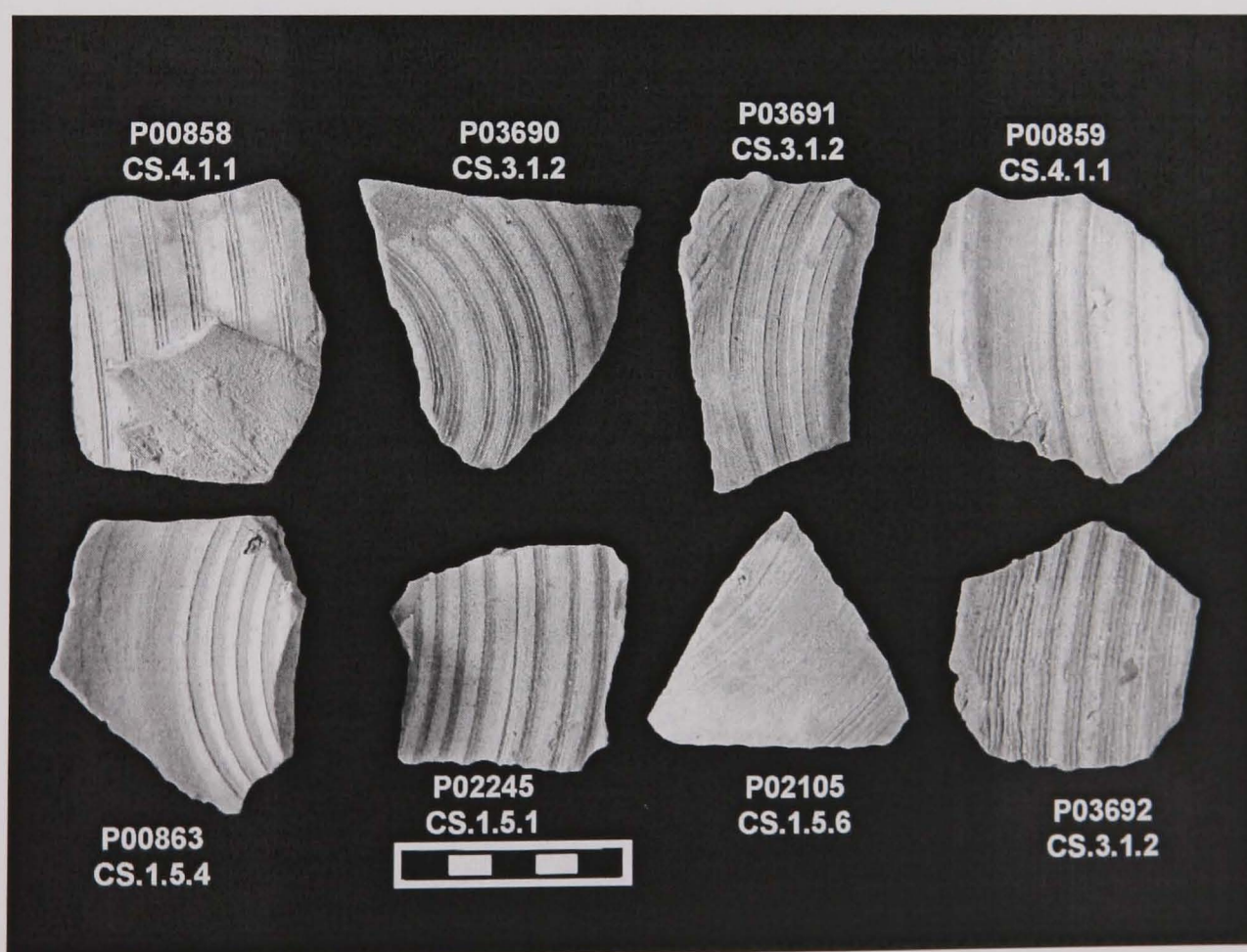


Plate 428 Middle Islamic Nabhani ware NMIW



Plate 429 Parts of vessel handles of Middle Islamic Nabhani ware NMIW

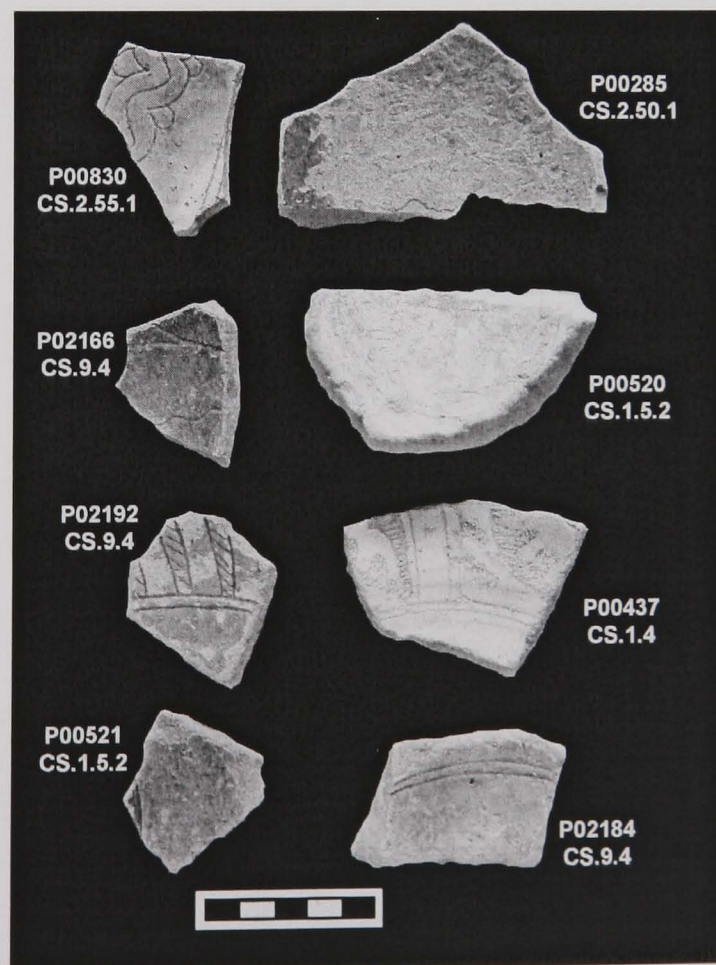


Plate 430 Body sherds of Middle Islamic Sgraffiato ware SGRF

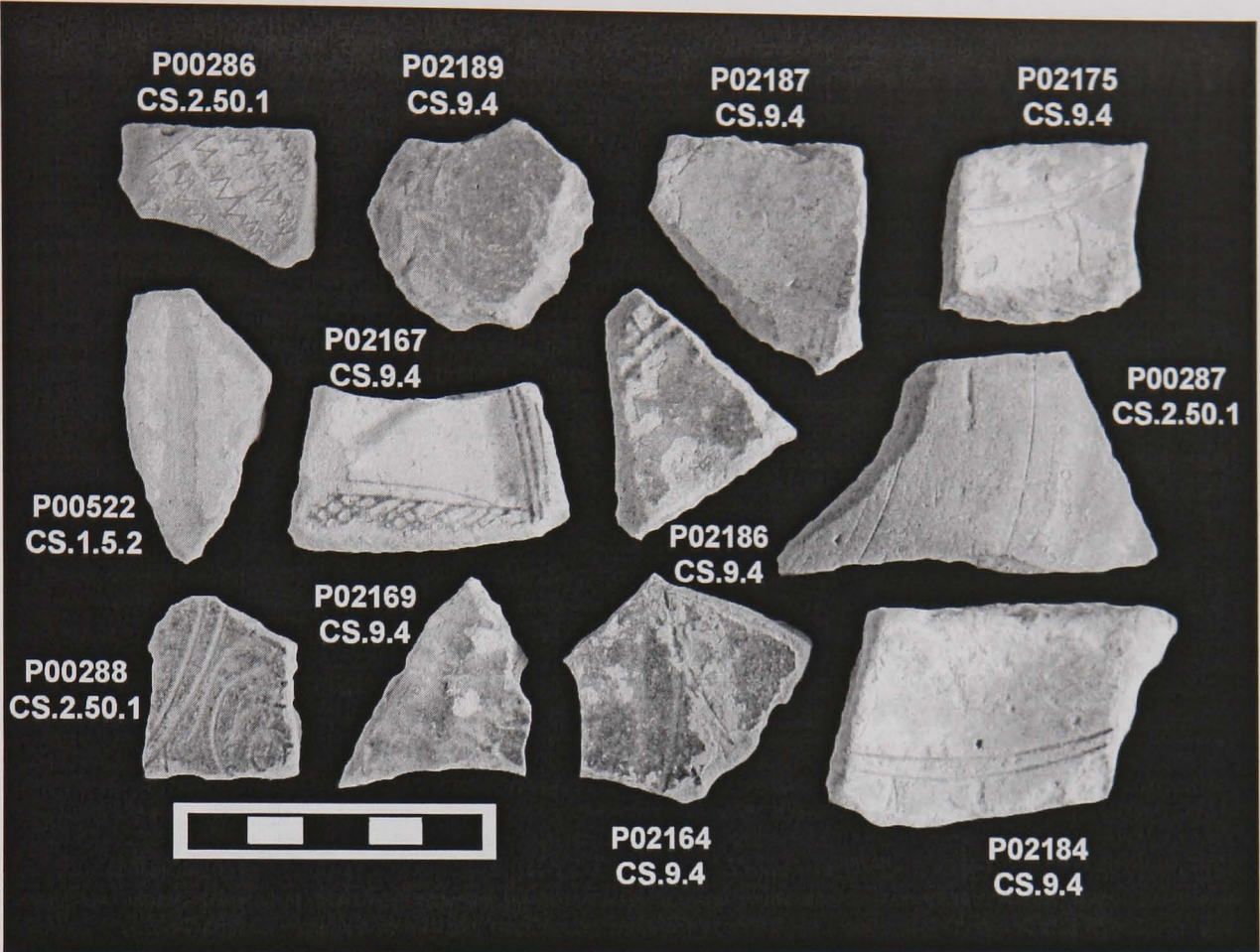


Plate 431 Body sherds of Middle Islamic Sgraffiato ware SGRF

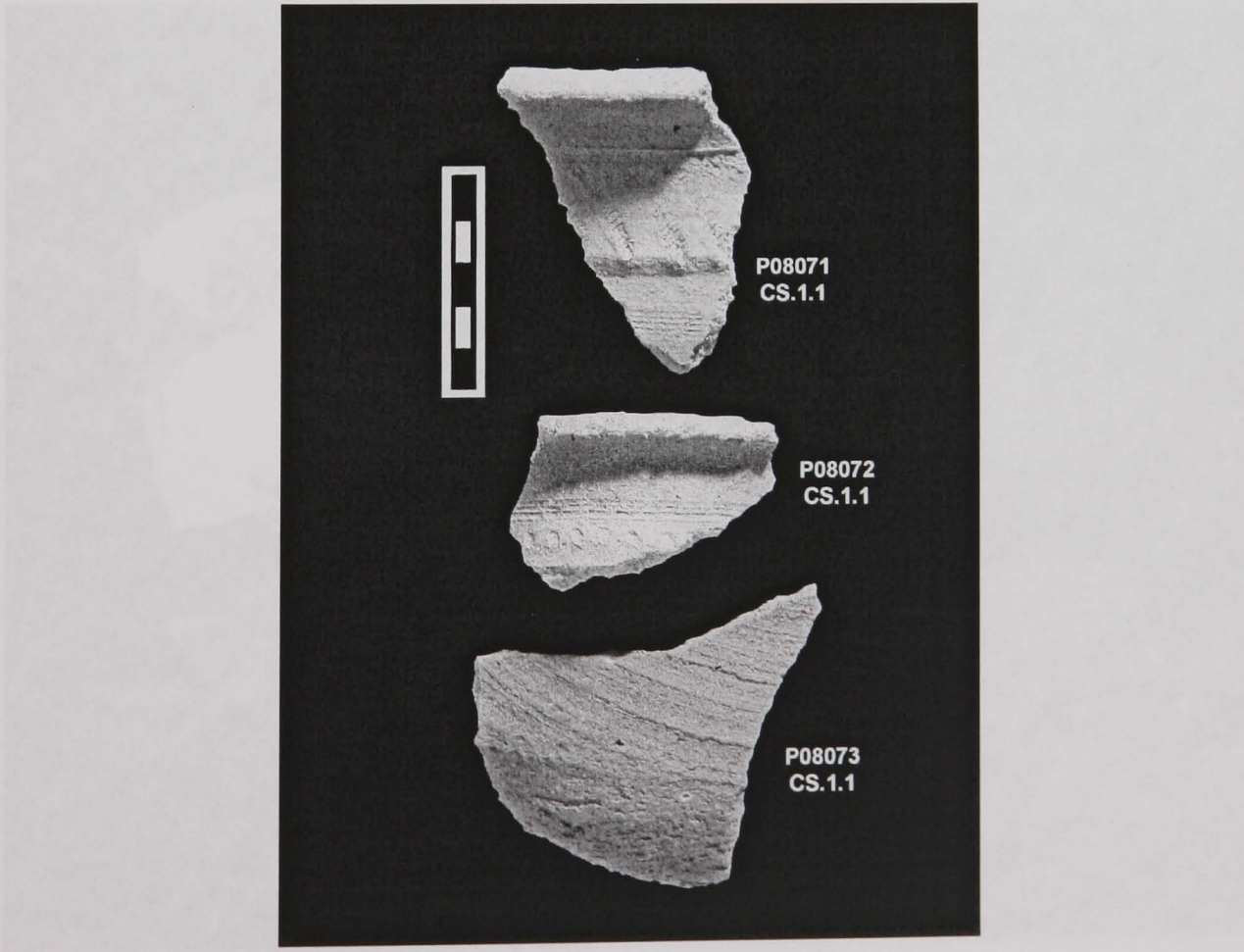


Plate 432 Example of Late Islamic Julfar ware



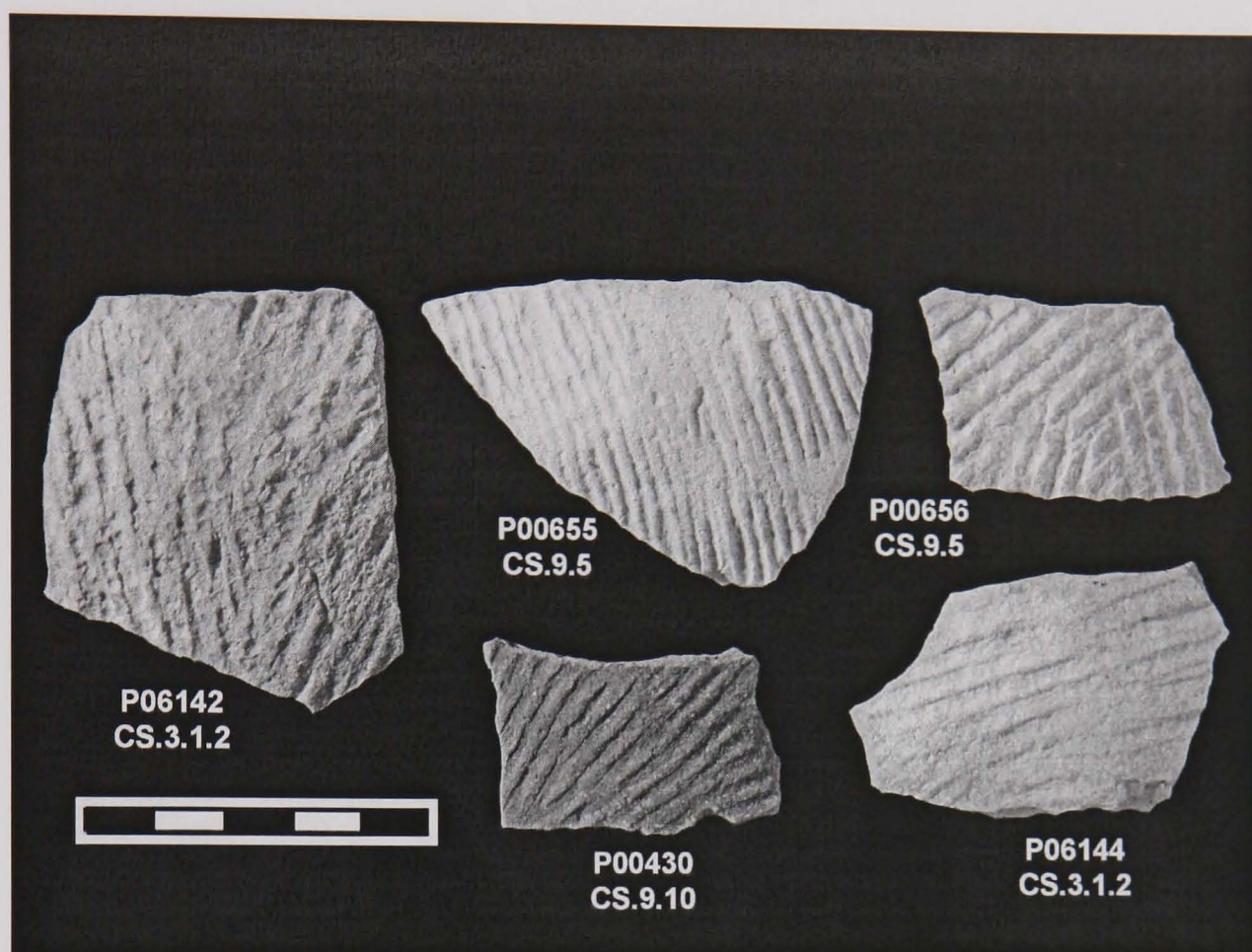


Plate 433 Example of Late Islamic Combed ware

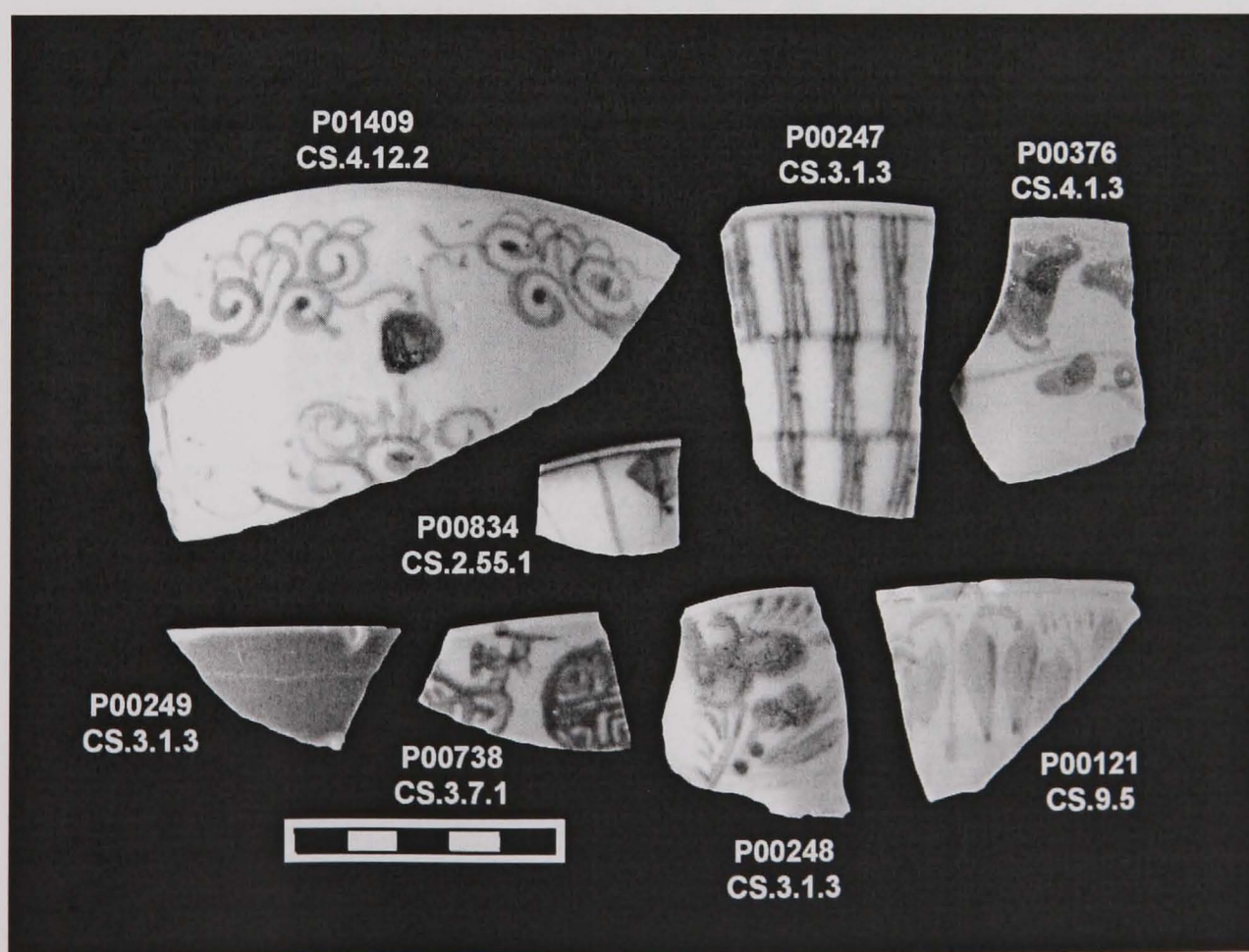


Plate 434 Example of Late Islamic Chinese Blue-and-White Porcelain

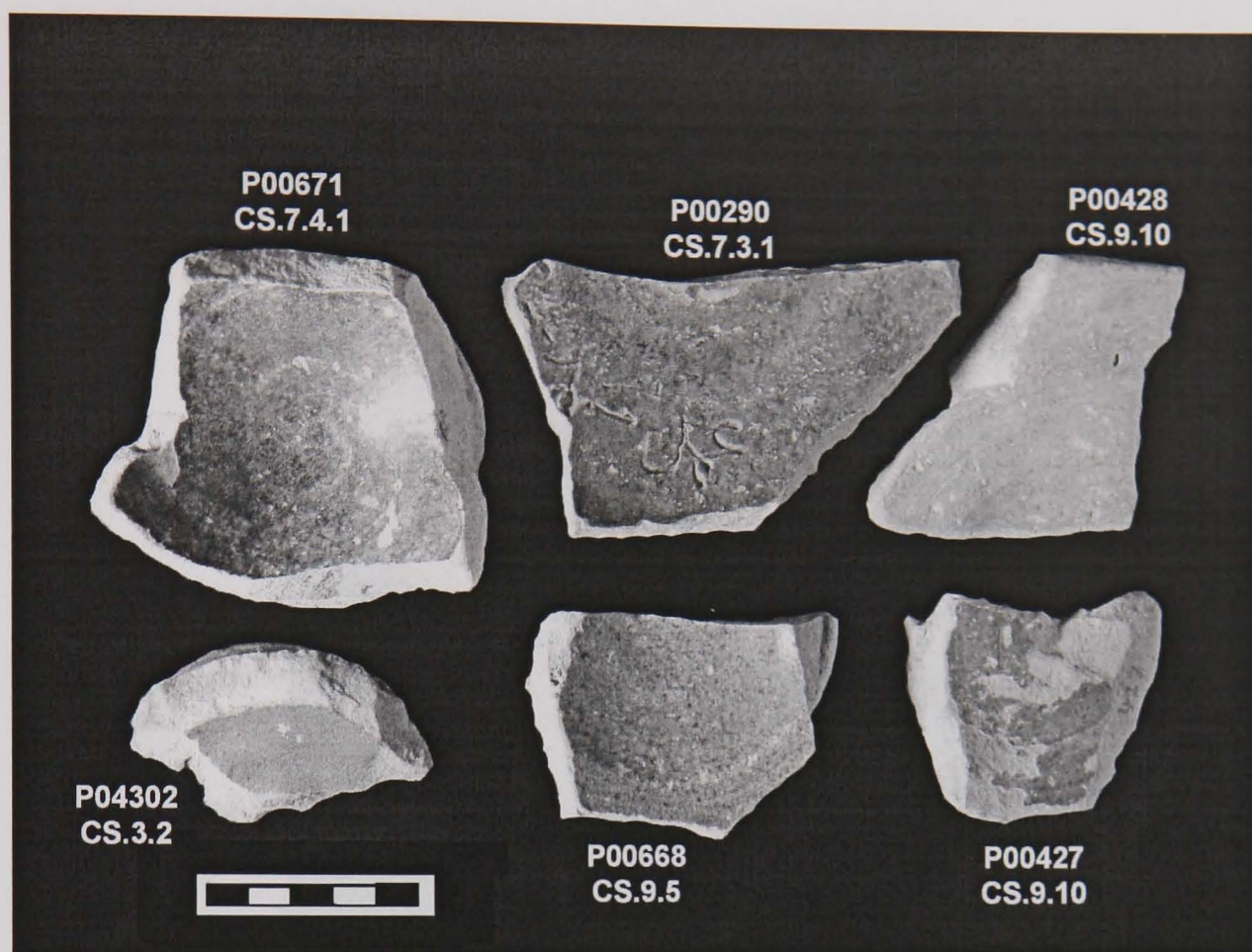


Plate 435 Example of Late Islamic Bahla Ware

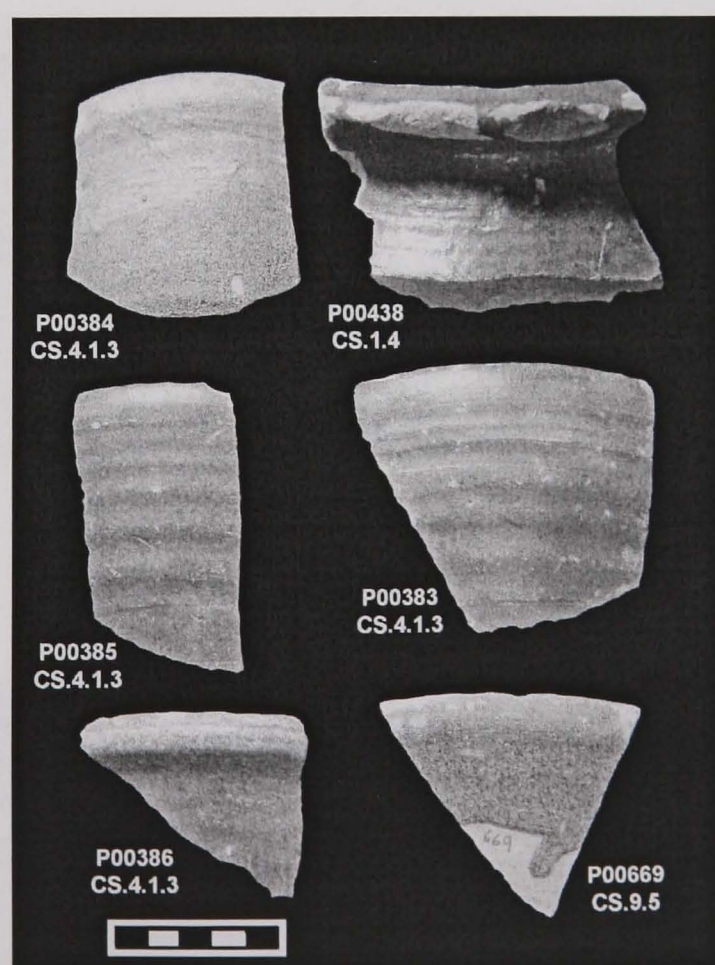


Plate 436 Example of Late Islamic Bahla Ware, jar rims

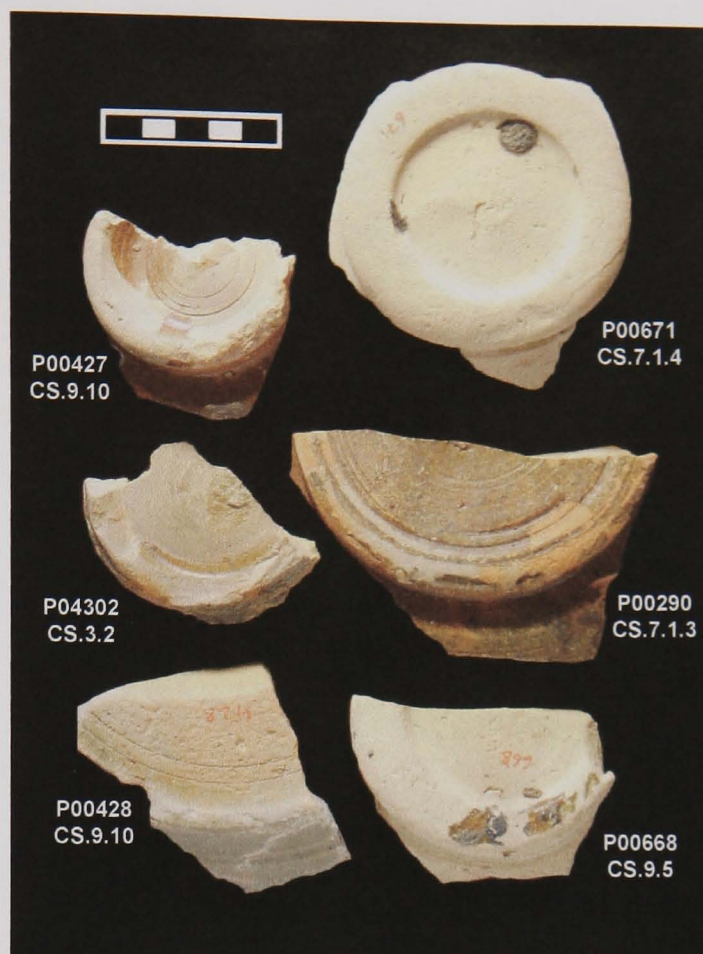


Plate 437 Example of Late Islamic Bahla Ware, jar bases



Plate 438 Example of Late Islamic Blue Bahla Ware

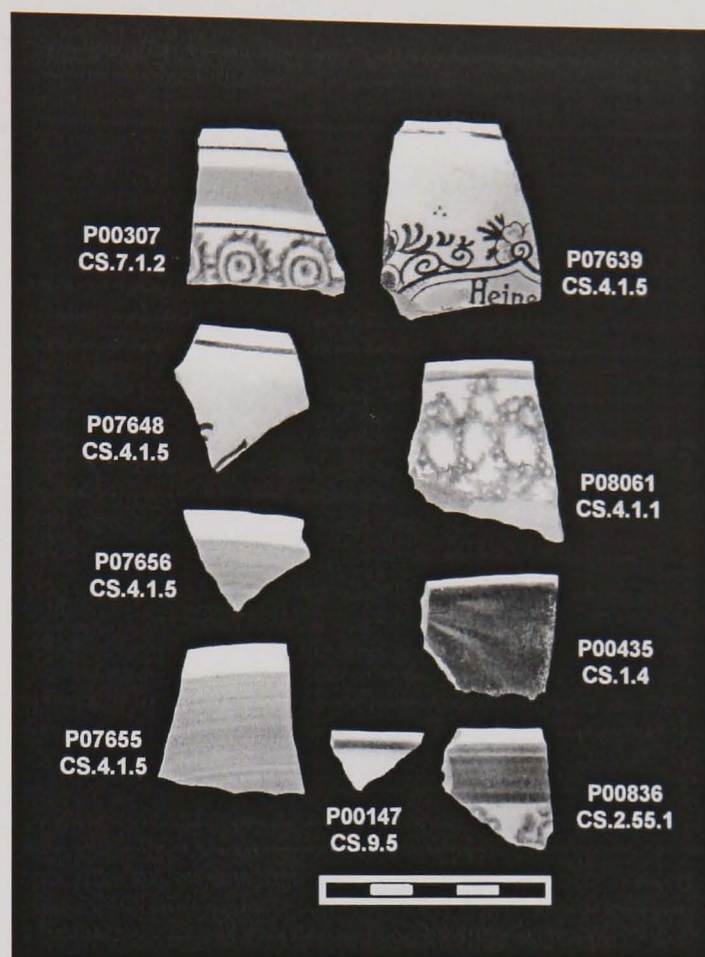


Plate 439 Example of Recent European Porcelain

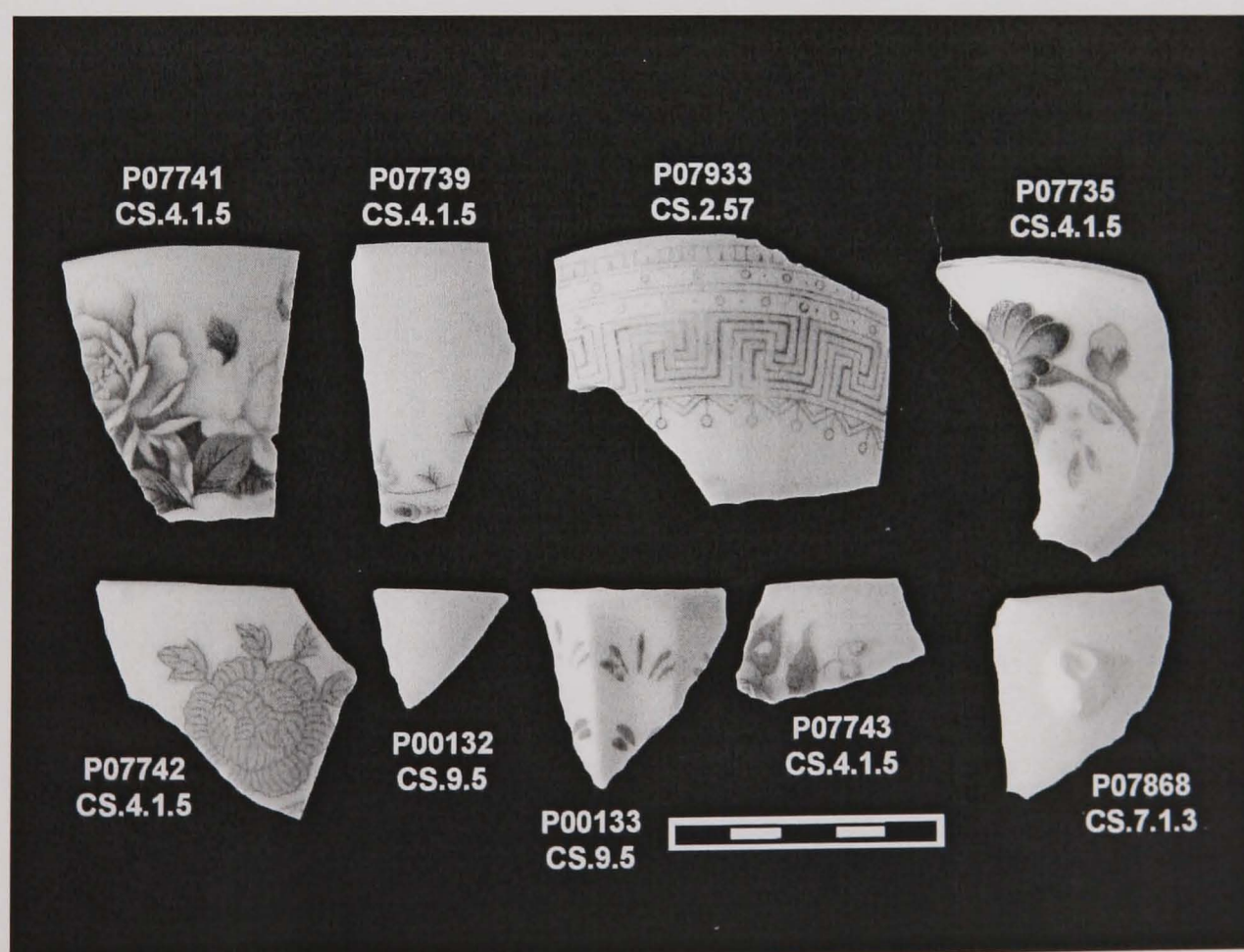


Plate 440 Example of Modern Porcelain

